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SENIOR NURSE ADMINISTRATORS  
AS DECISION MAKERS  
IN AN ERA OF  
ENVIRONMENTAL CHANGE

A thesis presented in partial fulfilment  
of the requirements for the degree of  
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## ABSTRACT

The purpose of this thesis is to examine the activities of senior nurse administrators as decision makers responsible for planning and policy issues in large hospitals. The focus is on the effect environmental change has on these decision makers. Nineteen-seventy-nine marked the end of a decade of considerable change for nurses, nursing and the health services of New Zealand.

In 1979 there were 46 nurses in appointed positions as chief, supervising principal or principal nurse of major regional or hospital nursing services in New Zealand. This total population was selected for the research study.

There was a 63% response rate to a mailed questionnaire sent in November 1979. The effect of having a very small research population is reflected in the quality of data. However, there is some very interesting material from which inferences can be made in light of the model developed by the researcher.

Seventy-nine per cent of the nurses participating in the study have been appointed to their present position from 1970 onwards and so have not had experience as an executive decision maker prior to the transitional era of the 1970's. Fifty-two per cent of these respondents have been nursing for more than 30 years and so have had long term exposure to working within bureaucracies. Fifty-six per cent of respondents have completed or partially completed university degrees and diplomas during the decade of the 1970's. Nursing qualifications do not reflect a move towards acquiring comprehensive registrations which became a possibility in this decade.

There is evidence of some changes in organisational structure and decision making strategies. Forty-one per cent of the respondents are no longer responsible to medical administrators for their decision making, 17% are part of executive management teams, and 19% report that they receive important information for decision making by means of group discussion. There is also evidence of these nurses acknowledging formal organisation group structures. If these nurses are active participant members in these groups, then it can be conjectured that not only will the organisation, but maybe these groups will also be buffers to the effects of environmental change.

The use of economic aspects of health services as indicators of information, that is considered as important by these decision makers, is a means of ascertaining subjective material. It is clearly demonstrated that finance and manpower have major effects on these nurses' decision making processes when compared with other input economic aspects of health services. Output aspects that are seen to be interlinked with finance and manpower, e.g. effectiveness of services, evaluation of quality of care, etc, are also seen to have considerable or very considerable effects on their decision making processes.

The results of this research study demonstrate that these nurses are responding to environmental change with some individual, geographical and organisational differences being evident.

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## PREFACE

This thesis was designed and the data collection undertaken in 1979. At this stage the author was in middle management as charge nurse of a surgical ward but became a principal nurse of a 1,000 bed psychiatric hospital in November 1979. Delays in completion of this thesis were caused by the supervisor and then the author going overseas on study leave.

The final write up of the thesis has been undertaken in 1982. This has had the advantage of updating the literature review in reference to more recent supportive texts. Also, the author has been able to write the thesis within the context of personal experience of being a senior nurse administrator herself.

The author completed her comprehensive nursing qualifications in 1972. All her nursing programmes were undertaken in hospital based schools of nursing as Technical Institute nursing programmes were only started in 1973 in New Zealand. Since 1973 the author has undertaken a baccalaureate degree in social sciences with a nursing major followed by study in graduate papers in business studies (all with health care orientations).

The background and interest of the author in health service organisational change and nursing responses to these changes have been motivating forces for undertaking this particular investigation.

This thesis endeavours to identify activities undertaken by senior nurse administrators at the outset of their decision making on major policy and planning issues. The identification of information generally perceived as

important input is of particular concern. The external environment within which these nurses are making decisions about nursing services and nursing education is that pertaining to the 1970's. A time which has been recognised as an era of considerable social, organisational and economic change and which has been an important period for nurse administrators.

## CHAPTER ONE

## HEALTH ORGANISATIONS AND THEIR ENVIRONMENTS

## INTRODUCTION

An organisation does not exist in a vacuum but in a dynamic environment which interacts with the organisation and influences its structure. Likewise, the organisation interacts reciprocally with its environment. Within the external environment there are forces - political, economic, social and technological - that also interact and generate their own dynamic properties. The more complex the external environment, the greater the possibility of dynamic interplay of forces resulting in the effect of impact at the interface of the organisation and the environment. This effect of impact may in turn result in organisational change and the development of complexity of organisational structure as a response. With, of course, the converse being true, that is, the more stable the external environment the less likelihood there is of change in organisational structure. Issues of organisational structural changes as a response to the types of environmental contexts and forces which encompass organisations are well discussed by Emery and Trist (1966, 1973), Kingdon (1973), Harrison (1975), Katz and Kahn (1978), and Kaluzny et al (1982).

As a response to the present day complexity and turbulence of the external environments, in which hospitals are expected to function, there is evidence of developing complexity of organisational design of hospitals (Rakich, Longest and Donovan 1977, Kaluzny et al 1982, Brager and Holloway 1978).

Health care organisations are human service organisations with an improved quality of life for clients being the goal and outcome criterion of the organisation. As a 'people organisation' it is very important to consider how the

health providers are functioning and how their roles change in response to changing organisational structures which in turn are the result of external environmental change. Nurses constitute the largest section of the health service work force. Activities of nurses, as indicators of the magnitude or effects of any change, are an appropriate focus for this thesis.

All aspects of nursing involve problem solving as a primary activity. At the work face problem solving is concerned with "hands on care" in the case of physical illness or disability, or with therapeutic nursing interventions. At the apical point of the nursing hierarchy of activities, the problem solving behaviour is concerned with administrative and policy decision making. It is the senior nurse administrators who are involved with this higher level activity. These particular nurses are very close to the interface of the organisation with the environment and the impact of the effect of environmental forces which could be assumed to have influence on and be reflected in their decision making activities.

It is possible to examine executive decision making using the rational perspective of classical or behavioural theorists, through a contingency approach or by taking an ecological or evolutionary perspective (Kaluzny et al 1982).

It is important when examining executives as decision makers to identify:

- from what sources do they get their information?
- who are their significant others in the decision making process?
- what are the significant environmental influences that are indicative of their responses to organisational and environmental change?

Therefore, if one is to examine how health service organisations are responding to environmental change, then one can focus on the senior nurse administrators and their decision making activities in the area of the nursing aspect of the patient care delivery system.

#### A DECADE OF CHANGE

The decade of the 1970's has been an era of considerable change for nurses, nursing and the health services of New Zealand. Important developments impinging on the work of nurse administrators are as follows:

- *The concerted move by administrators - in the New Zealand Nurses' Association, Health and Education - to have nurse education student-based and in the general system of education.*

The result of this being the introduction and commitment to a national policy of increasing numbers of technical institutes offering basic and post basic nursing programmes with associated decrease in hospital schools of nursing programmes and intakes. University education has also become a reality for registered nurses concerned about career development through tertiary educational qualifications.

- *Changes in organisational structures within health care organisations.*

The result of this has been alterations in lines of responsibility and decision making authority for nurse administrators.



- *Increasing professionalism and expectations of nurses and nursing.*

The result of this has been subscription to improved methods of patient care delivery, progressive autonomy in decision making, authority and accountability for nursing actions, professional responsibility congruent with consumer and other health professionals' expectations.

- *Changing economic and political influences on health services in line with the national economy.*

This has resulted in a move from affluence and expansion of health services to one of constraint, restraint and no growth philosophies being enforced on the maintenance and development of institutional health services.

- *Increasing activation and politicising of unions, consumer and pressure groups on the health services.*

This has resulted in increasing awareness of necessity for health administrators to acknowledge and utilise concepts related to economic aspects of health services as management tools and informed data bases for rebuttal against such pressure groups and for increased effectiveness and planning of health services.

- *Government policy supporting the integration of health services and de-emphasis of institutional health care for the populace.*

This has resulted in administrators of health services assuming a new focus and addressing many financial, personnel and other related organisational issues from different perspectives.

## IMPACT ON NURSE ADMINISTRATORS

In this thesis the decision making of nurse administrators is examined against the environmental forces of the 1970's. In the next three chapters the author addresses the following issues: environmental definition and character; decision theory and typology; and the complexity of organisational structure and decision making that occurs as a result of environmental change.

Having set the decision maker (senior nurse administrator) against the background of the decision making environment, an overview of models of decision making, general and specific, is undertaken. The research exercise then endeavours to identify activities undertaken by senior nurse administrators at the outset of their decision making on major policy and planning issues. Of particular concern to the researcher will be the identification of information which is generally perceived as important and environmental influences that are taken into account by these nurse administrators. Also of interest will be the identification of any evidence of these nurses having a specific format for organising this material.

The research exercise was undertaken in 1979, the last year in a decade of considerable social, organisational and economic change impacting on the New Zealand health services, and those responsible for their administration. Input and output, economic aspects of health services, are used as indicators of the relative importance of environmental and informational influences.

The nursing service administrators' activities, at the outset of their decision making on major policy issues, is the focus of the data collection. This focus is used to demonstrate the effect of environmental influences and information on this group of decision makers during a period of change.

## CHAPTER TWO

## ISSUES OF ENVIRONMENTAL DEFINITION AND CHARACTER

This thesis is concerned with selected aspects of hospitals as organisations with a particular focus on decision making. An open systems approach is used for organisational analysis as this approach postulates dynamic interchanges with the environment. It is important to consider some of the issues concerned with the complexity of environments if one is to understand the dynamic interplay of environmental variables with organisational variables.

Environmental Complexity

Environmental variables can be identified as characteristics which in turn have their own energies that come into play on interaction with each other and with the organisations. Taking this symbolism a step further, one can then conceptualise these interacting variables as environmental forces.

One way of conceptualising these forces is according to the relations and interconnections among these forces and the organisation which can be represented as an environmental texture. Emery and Frist (1966, 1973) analysed environmental characteristics by concentrating on such issues as turbulence or stability of environmental forces resulting in four types of 'causal textures' affecting organisations. The first two types referred to static environments and these were classified as placid randomised and placid clustered environments. The other two more complex types referred to dynamic environments and were classified as disturbed reactive and turbulent field environments.

Another way of conceptualising such forces is not according to the environments they produce but according to the suprasystem from whence they generate, e.g. social, political, economic, physical or technological.

Katz and Kahn (1978) combine both perspectives in a framework for examining organisational relations with the environment specifying both environmental sectors and general dimensions thus:

TABLE 2.1: A FRAMEWORK FOR EXAMINING ORGANISATIONAL RELATIONS WITH THE ENVIRONMENT, SPECIFYING BOTH ENVIRONMENTAL SECTORS AND GENERAL DIMENSIONS (replicated from Katz & Kahn (1978) p.125)

Environmental Sectors or Types of functional relationships	Stability Turbulence	Uniformity Diversity	Clust- ered Random	Scarcity Munifi- cence
1. Societal values : Cultural Legitimation				
2. Political : Legal norms and statutes				
3. Economic markets and inputs of labour and materials				
4. Informational and Technological				
5. Physical : geography natural resources				

These general dimensions are similar to those proposed by Emery and Trist (1966) but they have been developed in different combinations. For example, the stability, turbulence, dimension refers to the changing nature of the environment. There is a constant field of forces at one extreme, where the immediate future is predictable, but at the other extreme there is a turbulent field of forces where changes are difficult or impossible to predict. Similarly, the other three pairs of dimensions refer to the extremes of environmental characteristics that affect

organisational need for adaptation in response to environmental forces. One further interesting point made by Katz and Kahn (1978) is that they believe that there is a dynamic relationship among the five sectors of the environment, especially with regard to turbulence and its effect on organisational structure. Kingdon (1973) picks up this theme too when relating turbulent organisational environments to the change in structural complexity of organisations. Harrison (1975) in discussing turbulent fields in relation to decision making sees that in these circumstances decision makers in organisations will be required to make choices with a high degree of uncertainty. Also, organisational power to control the outcome of choices and to ensure the attainment of objectives will be considerably decreased.

The concept of turbulent field environments is seen by the author as relevant when considering the period of change affecting health care systems and, in particular, nursing service and education during the decade of the 1970's. The effect of turbulence as opposed to stability of environmental forces and the effect of suprasystematic change on organisational structures and executive decision making within organisations, such as hospitals, is elaborated on throughout this thesis.

#### Organisational Structure and Environment

A significant study of organisations and their relationships to the environment is that of Burns and Stalker (1961). In stable environments they found that management practices followed a traditional "mechanistic" model, whereas in environments that were changing the common practice was for increased lateral communication, more decision making down the line, less clearly defined roles in the hierarchy and this type of organisational response was known as the "organic" model. Lawrence and Lorsch (1967) undertook another study focussing on the effects of differentiation and integration in organisations functioning as rigid structures in stable environments and flexible structures

in changing environments. Differentiation is seen by Lawrence and Lorsch to be dependent on the degree of certainty or uncertainty of the task environment. Therefore, if there is a high degree of uncertainty in the task environment then it is likely that the organisational structure will become highly differentiated. Likewise, integration refers to the degree of collaboration between departments resulting in efficiency of response to environmental demands. The Lawrence and Lorsch studies and those of Burns and Stalker, resulted in similar conclusions in relation to successful industrial organisations. However, Kaluzny et al (1982) report that when the Lawrence and Lorsch approach has been applied to studies of hospitals, data reveals that -

the greater the degree of differentiation and integration, the higher the organisational performance. The one variation in hospitals is that differentiation is more significant to organisational performance than integrative activity (p.79).

Such organisational structural responses to environmental variables is referred to as the contingency approach. However, organisational structural change contingent on environmental influences may not be reflected in the whole system but only in some of the subsystems. This is discussed by Katz and Kahn (1978) in relation to organisations in general and by Rakich et al (1977) in relation to hospitals.

#### Effect of Environmental Influences on Decision Making Strategies of Organisations

Kingdon (1973) in describing environmental effects on organisational structure sees that the latter is largely determined by its decision making needs. He then comments on McWhinney's (1967) research that showed that a match must be established between the complexity of the environment and the role and modality of the organisation's decision making.

Applying this to Emery and Trist's classification of environmental textures, Kingdon is able to show that with the increasing complexity of the environment there is an increasing complexity of decision making strategies. This results in organisations evolving and formally structuring decision making hierarchies which increase in response to increasing environmental uncertainty and turbulence. Kingdon (1973) argues that the inflexibility and rigidity of structure of bureaucracies is seemingly inappropriate for large scale organisations functioning within increasingly complex technological environments. Therefore, he advocates the matrix structure of a project form superimposed on a hierarchical form of organisation as being more appropriate.

Not only is there a decision making hierarchy in response to environmental complexity but according to Thompson (1967) decision strategies are specialised according to hierarchical location in complex organisations. There are three distinct levels of responsibility and control relative to decision making: technical, managerial and institutional. At the institutional level where the organisation is in close contact with the environment there is considerable uncertainty. In Thompson's view (p.13) the environmental uncertainty at the institutional level can be mediated by the managerial level so that the uncertainty is bounded by the time it reaches the technical level. Thus the technical level can make rational decisions relative to technological problems (fig.2.1.)

Discussion in this chapter has been centred around the issues of organisational adaptations as a result of environmental forces. Table 2.2 demonstrates the type of organisational structure that exists in order that the organisation remains in equilibrium with the associated variables of the external environment and design of the organisation. There are today, organisations that are structured according to type X and others that have evolved from being type X and are now structured according to type Y in response to an increasing complexity of external environment.

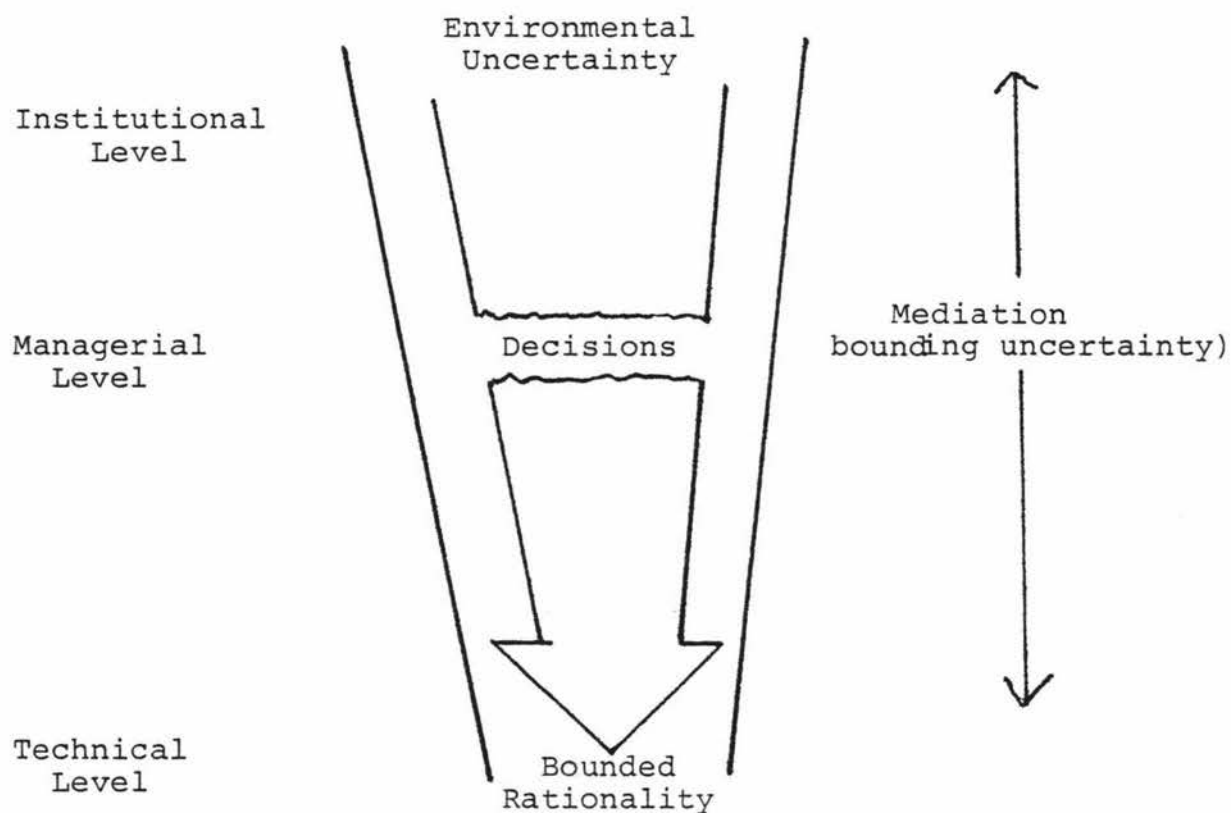


Fig. 2.1

Hierarchical decision making structure in complex organisations

Footnote: Figure 2.1 is taken from Kingdon (p.11) but it would appear from the text (p.10) that this representative figure is attributed to Thompson.



TABLE 2.2 :

COMPARATIVE THEORETICAL ANALYSIS OF ORGANISATIONAL STRUCTURAL  
RESPONSE TO ENVIRONMENTAL CHANGE

Type of Organisation	Organisational Structure	Associated Variables
X	Simple Classical Hierarchical Authority Centralised decision making Rigid rules and procedures	Placid, randomised, environment (Emery & Trist) Stable, uniform, clustered, scarcity environment (Katz & Kahn) Low degree of uncertainty of task ) Undifferentiated environment, homogeneity of task ) low integration environment ) (Lawrence & Lorsch) Stable, placid environment - bureaucracy (Kingdon) Decisions at top or institutional level (Thompson)
Y	Complex Matrix Decentralised decision making Flexibility of rules and procedures	Turbulent field environment (Emery & Trist) Turbulence, diversity, random, munificence (Katz & Kahn) High degree of uncertainty ) differentiation High degree of diversity ) plus integration (Lawrence & Lorsch) Turbulent organisational environment - Matrix (Kingdon) Decision making at all levels ) Hierarchy of decisions ) (Thompson)

Management systems are not the primary focus of this thesis but have relevance in regard to the organisational systems in which the administrator is making decisions. Likert (1967) in his comparative analysis of organisational and performance characteristics of different management systems developed a four system categorisation which could be described in terms of eight dimensions thus:

- System 1 - exploitive authoratative
- System 2 - benevolent authoratative
- System 3 - consultative participative
- System 4 - participative group.

This categorisation was developed as a result of Likert taking a behavioural approach to organisational analysis. Kaluzny et al (1982) describe the dimensions of the Likert categorisation as being on a continuum with classical design organisation at one extreme (System 1) and the ideal (System 4) at the other extreme (see Table 2.3). The type X and Y organisations in Table 2.2 are likewise similar to the Likert System 1 and System 4 organisations. This is to be expected as managerial systems are developed in accordance with organisational structure requirements and as a means of producing organisational efficiency appropriate to external environment requirements.

This chapter which has been concerned with issues of organisational structures that evolve as organisational responses to changing external environments provides an introduction to the next chapter. Here the evolution of the nurse administrator positions and hospitals as organisations are discussed using cross national comparisons and organisational theory analogies.

TABLE 2.3: CLASSICAL DESIGN AND SYSTEM 4 ORGANISATION

Classical Design Organisation	System 4 Organisation
1. Leadership process includes no perceived confidence and trust. Subordinates do not feel free to discuss job problems with their superiors, who in turn do not solicit their ideas and opinions.	1. Leadership process includes perceived confidence and trust between superiors and subordinates in all matters. Subordinates feel free to discuss job problems with their superiors, who in turn solicit their ideas and opinions.
2. Motivational process taps only physical, security and economic motives through the use of fear and sanctions. Unfavourable attitudes toward the organisation prevail among employees.	2. Motivational process taps a full range of motives through participatory methods. Attitudes are favourable toward the organisation and its goals.
3. Communication process is such that information flows downward and tends to be distorted, inaccurate, and viewed with suspicion by subordinates.	3. Communication process is such that information flows freely throughout the organisation - upward, downward and laterally. The information is accurate and undistorted.
4. Interaction process is closed and restricted; subordinates have little effect on departmental goals, methods and activities.	4. Interaction process is open and extensive; both superiors and subordinates are able to affect departmental goals, methods and activities.
5. Decision process occurs only at the top of the organisation; it is relatively centralised.	5. Decision process occurs at all levels through group process; it is relatively decentralised.
6. Goal-setting process is located at the top of the organisation, discourages group participation.	6. Goal-setting process encourages group participation in setting high, realistic objectives.
7. Control process is centralised and emphasises fixing of blame for mistakes.	7. Control process is dispersed throughout the organisation and emphasises self-control and problem solving.
8. Performance goals are low and passively sought by managers who make no commitment to developing the human resources of the organisation.	8. Performance goals are high and actively sought by superiors, who recognise the necessity for making a full commitment to developing, through training, the human resources of the organisation.

SOURCE: Adapted from R. Likert, *The Human Organisation* (New York, McGraw-Hill, 1967), pp.192-211 by Kaluzny, Warner, Warren & Zelman (1982) p.76.

## CHAPTER THREE

## EVOLUTION OF THE NURSE AS AN ADMINISTRATOR

As it is the intention of this thesis to focus on the decision making of nurse administrators, it now seems appropriate to present an overview of the evolution of the nurse as an administrator. When one is studying such an evolutionary perspective, parallels can be drawn from other countries - Britain, the United States and New Zealand all have the Nightingale philosophy of nursing as the genesis of nursing for the 20th century so are appropriate national systems of nursing to compare and consider.

Nightingale Philosophy of Nursing

The first Nightingale School of Nursing opened at St Thomas Hospital in London in the early 1860's. The criteria for entrance were that the young ladies had to be of good education and moral standing. The Nightingale nurses were missionaries that were trained to train, i.e. they were to go into other hospitals and public institutions and start similar schemes. (Baly 1980). Their training was based on three objectives:

- training of the character;
- acquisition of skill and knowledge;
- nursing administration and instruction in the hands of nurses.

These nurses were thus trained to be the Lady Superintendents and leaders of nursing in the late 19th century.

Unfortunately, Miss Nightingale was unable to attract enough recruits for the positions offered, so in 1865 the second method of entry to the Nightingale School was offered. All candidates were subjected to the same rigid entry test, but the better educated and more prosperous did a one year training and were paid, whereas the less well educated candidates did a two-year training and received some payment.

Miss Nightingale firmly believed, however, that it would be the educated who would be more likely to rise to the post of Superintendent, not because they were ladies but because they were educated. Training eventually became standardised to three years' duration and it was common in voluntary hospitals up until the Second World War for entrants to teaching hospitals to pay for at least part of their training. Ability to pay was seen as synonymous with a better education. These neophyte nurse administrators were trained in an atmosphere of rigid discipline, hierarchical organisation and stringent indoctrination as apprentices to their superordinates. This system of dealing with the decadence of the hospital system and the manifest nursing problems was seen to be appropriate by Miss Nightingale. She had experienced the rigors and results of military and religious nursing orders herself and shaped her system accordingly.

Glaser (1966) refers to the Nightingale system of nursing service and education as being spread by discipleship and emigration. Not only did Nightingale-trained nurses become matrons of hospitals and nursing schools throughout the British Isles and British Empire, but they also became matrons of foreign hospitals and founders of foreign nursing schools. Nutting and Dock (1907, 1935) also describe this phenomenon of the worldwide spread of the Nightingale system. Woodham Smith (1951) and Seymer (1960) also give detailed accounts of Nightingale nursing education and nursing service.

Against this background of the Nightingale system, the evolution of the nurse as an administrator will be described.

#### American Perspective

An excellent account of the evolution of the American senior nurse administrator is portrayed in Erickson's (1980) article entitled "The Nursing Service Director 1880-1980". Her account is supported by extracts from nursing journals and research studies. The following is a summary of the issues developed in her article.

In the early part of the century the Nursing Service Director was known as the Superintendent of Nurses. In some cases she was also the hospital superintendent or was directly responsible to that person. Her nursing functions and responsibilities extended to instruction, discipline and assignment of pupil nurses and supervision of parts of the hospital occupied by the patients as well as the nurses' home. She was also responsible for the health and welfare of the nurses and was closely allied to them by nature of the fact that she lived in the hospital and took her meals with them.

She was also responsible for the domestic staff which she hired and fired according to their ability to maintain high standards of housekeeping. She also assumed the role of the "dietician" in ensuring high quality and adequate special diets were prepared. Not only did the Superintendent supervise nursing care but she often gave it. It was not unusual for these ladies to 'special' patients and to do night duty as well as doing their regular work during the day. In some cases these dedicated nurses found it more convenient to have a room off one of the wards, which, according to America's first trained nurse, Linda Richards, in the 1870's, was lacking in comfort but was more convenient because she could be called for patient care at any hour of the day or night.

An interesting caricature of Isobel Hampton Robb, Superintendent of Nurses at John Hopkins Hospital, at the turn of the century, is provided by Johns and Pfefferkorn (1954). She is reported to have made daily rounds and taught students at the bedside explaining nursing care and watching demonstrations. She stood by her nurses and would brook no interference by doctors in policies of nursing service. All nursing was done by pupil nurses; she avoided employment of "outside" nurses because they had fixed ideas about nursing which would result in lack of uniformity. Also, the nursing superintendent's concern for finances and budget was made very clear in the early history of the

John Hopkins School of Nursing. Repeated reference was made to decisions that were affected by financial considerations. In those early years the school was expected to be self-supporting. (Johns and Pfefferkorn, p.89.)

Erickson (1980) also reports on the conflicting pressures experienced by nurse administrators.

In the early 1920's the Committee for the Study of Nursing Education looked at the position of superintendent of nurses. At that time the superintendent still had responsibility for both the school of nursing and nursing service as well as for the hospital operation in some instances. This study, known as the Goldmark Report, showed that the position required a person with expertise in management, gained primarily through a wide range of experience, and broad technical knowledge of nursing. The nursing superintendent was expected to influence the hospital's policies on budget, obtain personnel, carry out the exacting daily routine, meet the continual crises of supervision and management, be on call for student nurses on night duty and administer the nursing service. She was caught between the demands of providing education for students and providing nursing care for patients. The more able and conscientious she was, the more difficult was this task. (p.8)

In 1926 the Committee on Grading of Nursing Schools conducted a study on the economics of nursing and focussed some attention on the superintendent of nurses. There were 1,398 nurses in the sample who were holding the following positions: 274 as superintendents of hospitals; 606 as superintendents of nurses; 518 as superintendents of both hospitals and nurses. Individual respondents identified the following elements of the nursing director's position:

Stretching funds  
 Knowing business methods  
 Making personal contact with patients  
 Understanding medical and nursing problems  
 Organising the school, its teachers and  
 its students  
 Arranging student housing  
 Acting as housekeeper and teacher  
 Securing instructors and supervisors  
 Arranging student and personnel vacations  
 Propitiating medical staff  
 Knowing something of all professions and  
 trades  
 Furnishing supplies  
 Creating new services.

(Burgess 1928, pp.400-409.)

In 1927 the Education Committee of the National League of Nursing Education made another study of the nurse administrator. Twenty-five superintendents of nurses, who were also principals of schools of nursing, participated in this study. They were connected with hospitals in 11 States as well as two in Canada, ranging in size from 110 to 2,000 beds. Each superintendent kept a diary of her activities and the time she spent in each. Listed below are those activities that took more than three per cent of her time.

Office work (reading mail, typing letters)	13.5%
Rounds to see patients, inspect hospitals	9.5%
Conducting staff conferences, head nurses' meetings	4.6%
Attending or conducting professional social activities	4.3%
Inspecting and planning for nurses' home	4.2%



Personnel conferences	4.0%
General professional obligations (attending nurses' meetings, committee work)	4.0%
Writing or interviewing applicants to the school	3.3%
Housekeeping duties, issuing supplies and drugs	3.1%

Erickson (1980) sees that it's interesting to note, in the above findings, the emphasis on patient rounds, during which the superintendent could simultaneously observe the work of students, talk with head nurses, supervisors and patients, and observe many housekeeping details. (p.8)

World War II brought about dramatic changes in health care. According to Erickson (1980) there were more hospitals and patients, greater complexity of services, a shortage of nurses, and more auxiliary nursing personnel. In Erickson's opinion it was felt that nursing service directors were not prepared to cope with operating increasingly complex nursing departments and integrating large groups of auxiliary personnel into the hospital organisation. In response, the W.K. Kellogg Foundation began a project in 1951 of advanced education in nursing administration in 14 universities. This project demonstrated the importance of skilled administration in improving nursing care and established the distinction between nursing education and nursing service administration and the need to separate these two functions.

Hagen and Wolff completed a study in the early 1960's in which they studied nursing leadership behaviour in 15 hospitals in five Eastern States. Their findings were thus:

The typical director of nursing in the large hospital was a single woman, about 46 years old with a Masters in Nursing, who had been in her position about five years. The findings showed that she was rarely seen by graduate staff nurses or head nurses. Her role was perceived mainly as providing leadership for administration of nursing service. She was also seen to have a central role

in establishing and maintaining good personnel relations, evaluating personnel fairly and helping them grow professionally. She was seen as a leader in enforcing hospital policies. She was not perceived as having a major role in supervision of patient care or in relation to ideas or promotion of nursing as a profession, nor did she promote a feeling of belonging to the hospital or the profession as a whole. She gave little or no consideration to long range planning. (pp. 147-151.)

So we have a picture of the change in role and functions of the now director of nursing services of the larger American hospitals.

Directors of nursing services of smaller hospitals were found in the Chapman Study (1964) still being responsible for pharmacy, purchasing, admissions, central service, housekeeping and purchasing, storing and issuing supplies.

#### British Perspective

May Hulme (1980) in her article, "Well, Should Matron Come Back", opens with this statement:

From time to time, the call goes up from the medical profession: 'Bring back Matron', but her role - and the effect her return would have on the nursing structure - is never discussed.

In looking back, Hulme had this to say:

Thirty years ago, Matron was recognised publicly as the head of the nursing staff in her hospital. Whether it was a cottage hospital of 20 beds or a much larger hospital of 800 beds, the concept that she was basically performing the same duties, and that there was one overall head, was appreciated. The size of the institution, and thus

the responsibilities, was supposed to be reflected in the numbers of senior staff and, to some extent, in the salary.

In addition to the nursing services, matron was also in charge of domestic, catering, laundry and linen departments. There were slight differences in her duties in the voluntary and municipal hospitals, but she appeared to the staff to work harmoniously with honorary consultants, the house governor, the medical superintendent and her committee. She was respected in the town for the position she held. (p.28.)

Nineteen-forty-eight saw the introduction of the National Health Service in Britain with the tripartite administration - medical, nursing and general administration - being advocated. Concurrently the General Nursing Councils were constantly reviewing nurse training facilities and curricula. Some of the 200-300 bedded hospitals were considered as being unable to provide the necessary clinical experience for the student nurse, and so group training schools began to emerge. According to Hulme (1980) -

Hospital managements then decreed as retirals took place in smaller hospitals, these institutions would be 'latched' to the local major hospital, under the control of one matron and a group secretary. Extraneous duties - domestic, house-keeping, catering, etc - were increasingly being removed from nursing control, and so the responsibilities in the smaller hospitals did not match those formerly discharged by a matron, and it seemed desirable to have an assistant matron in charge. The group matron, however, without these duties, had wider obligations. Some hospitals were scattered over several miles. Good communications were developed fast so that policies and standards were uniform.

Management developed according to the wishes of the committees. In some areas ad hoc groups were found necessary. Matron, however, did not have the right to attend meetings. In some districts, such as Worcester, hospital managements welcomed matron. I and all other matrons in the group were given every opportunity to represent nursing and, indeed, were expected to do so.

Not so everywhere, however. Some matrons were invited to attend when the chairman decided that a nursing opinion was required. Others were allowed to attend but could only speak when called on to do so. In the extreme some matrons did not take part at all but received a report from the group secretary after all decisions had been made.

It was true that, all too often, policies which had direct bearing on nursing were formulated by medical and general administrators without any nursing input. This was totally unacceptable to the nursing profession and extremely frustrating for the matrons. (pp. 28-29.)

With the introduction of the Salmon structure in the 1960's, a senior nursing structure was introduced with new titles and responsibilities in order to get uniformity of responsibilities and duties across the grades. Matrons became Divisional, or Area or Regional Nursing Officers, according to their spheres of responsibility.

Hulme (1980) sees -

The divisional nursing officer is surely the person taking the matron's duties best known by staff and public. This person is responsible for the day-to-day running of one large hospital, a group of hospitals, or community. This involves staffing levels, standards, implementing policies, etc and so here we have matron returned. (p.29.)

There are other sources of information, but for the purposes of this thesis the section from Hulme vividly illustrates the essential points.

#### New Zealand Perspective

The establishment of hospitals in New Zealand began in the 1840's. The first Wellington hospital was opened in Pipitea Street in 1847 and was described as "a small intimate medical practice with a Resident Superintendent, assisted by the Matron, a Steward, and a few attendants" (Barber and Towers, 1976, p.23). Eighteen-eighty-one saw the opening of a larger hospital in Newtown and the employment of "Lady Nurses" who, in return for instruction given them in the science of and practice of nursing, performed the duties of nurses in the wards and were known as probationers.

Barber and Towers (1976) have this to say of the Matron of the 1880's:

What of the Matron? What were her functions within the new hospital? All nurses and female domestics came under her control, and she was responsible for the efficiency of the hospital's laundry work as well as of its nursing. Beside her professional nursing duties, the Matron was, with the House Steward, responsible for the hospital's household goods and furniture. She was also guardian of all money and valuables deposited by female patients, and was responsible for the correct count of linen returned from the wash. Unlike her subordinates, the Matron was expected to take rooms in the hospital. Hospital regulations insisted that she should - according to the 1886 By Laws for Management of the Wellington District Hospital -

Visit all the wards, commencing not later than nine o'clock every morning, and not earlier than eight every evening, and the other departments daily and see that good

order and cleanliness are everywhere maintained. She shall see that the meals of the patients are properly served by the nurses and so far attend to their distribution that there be no cause of complaint. She shall visit the wards at uncertain times and take care that the rules of the house are strictly observed and that the nurses and servants do their duty -

The period 1875-1890 in Wellington saw eight Matrons come and go. Their tasks were onerous and resident medical officers were not always the easiest of colleagues ..... fault could also be found with the hospital administrators who insisted that, for a paltry 100 pounds per annum, their Matron should be a nursing specialist, bursar, custodian, executive officer and general scapegoat. Matrons were over-worked and exploited in the post provincial period. (pp. 24-25.)

The 1920's saw the relinquishment of some of the Matron's direct teaching of trainee nurses with the appointment of tutor sisters. In 1926 a new scheme was instituted at Wellington Hospital, by the Matron, wherein nurse trainees received a three month introductory course of lectures and nursing demonstrations before being posted to ward duties. Also, at this time nurses and midwives were required to receive registration under the Nurses' and Midwives' Registration Act of 1925.

The 1940's, in some cities, saw the emergence of the title Matron-in-Chief for the Matron of the largest hospital. She also had the responsibility for overall standards of nursing services in the rest of the Hospital Board's institutions.

TABLE 3.1: SUMMARY OF CROSS NATIONAL COMPARISONS OF SENIOR NURSE ADMINISTRATOR RESPONSIBILITIES

Variable Categories	American (large hospitals)		British		New Zealand	
	1860-1940	1940-1970	1860-1940	1940-1970	1860-1940	1940-1970
Status Power	High	High - Medium responsible to administrator	High	Medium - responsible to group secretary	High	Medium - responsible to medical administration
Decision-making authority	High	High - Medium	High	Shared - Tripartite or Diminished Pre Salmon	High	Medium
Financial Control e.g. Nursing Budget	High	Variable	Medium	Diminished	High	Diminished
Nursing Manpower Control	High	Medium	High	High	High	High
Nursing Education Hospital Schools	High	Medium to Low	High	High	High	High
Domestic Supervision	High	Diminished	High	Diminished	High	Diminished
Patient Care Giver	High	Low	High	Low	High	Low
Patient Care Supervisor	High	Low	High	Low	High	Low

The 1970's saw some of these Matrons-in-Chief relinquish their direct responsibility of an institution and become wholly responsible for the standards of nursing services in all institutions under their Hospital Boards. Since 1976 these Matrons-in-Chief have been known as Chief Nursing Officers in the large urban centres; Supervising Principal Nurses are their counterparts in smaller rural areas, and Matrons of single institutions have been known as Principal Nurses.

Responsibility of the now designated Chief Nursing Officers, Supervising Principal and Principal Nurses for nursing training was diminishing in the 1970's with the advent of the gradual transfer of nursing education to technical institutes and community colleges since 1972. Also, during this decade in the major hospitals, non-nursing duties such as laundry, cleaning, clerical and institutional managerial services were almost exclusively done by contract and/or hospital board ancillary services. This enabled nurses to focus on direct nursing care and nurse administrators to be increasingly involved in planning, policy making, establishing and maintaining standards of nursing services and practice and the role of nursing within the larger orbit of the community and health care systems.

#### Summary of Cross National Comparisons

Table 3.1 sets out the major activities and key points of similarity and difference between the three national nursing systems. The period 1860-1940 clearly demonstrates the essential points of the Nightingale system and the influence of those matrons who had trained under the system or had been directly influenced by it.

#### Nurse Administrators of New Zealand in the 1970's

Having established a historical perspective from which senior nurse administrators of New Zealand hospital nursing services have come from, it now becomes important to establish a functional perspective of the nurse administrator of the



1970's. Firstly, the functions of these nurse administrators, who are to be the subjects of this study, will be described.

At the time of the data collection in 1979 there were 46 senior nurse administrators responsible for the nursing service of New Zealand hospitals that had over 200<sup>I</sup> average bed occupancy. These 46 senior nurse administrators are subdivided into three groups, i.e. chief, supervising principal and principal nurses, according to whether they have regional (large populations), institutional plus regional (small populations), or institutional responsibility. Definition of these three groups of nurses is as follows:

"Chief Nurse" means a registered nurse who:

- (1) is the senior nurse employed by a Board; and
- (2) is responsible for the administration of the nursing services of all the Board's institutions;
- (3) in every case, is appointed to a position which, for the purpose of the determination, has been designated by the Director-General of Health as that of Chief Nurse.

"Supervising Principal Nurse" means a registered nurse who:

- (1) is the Principal Nurse of the Board's main institution; and
- (2) also supervises the nursing services at all the Board's other institutions; and
- (3) in every case is appointed to a position which, for the purposes of the determination, has been designated by the Director-General of Health as that of Supervising Principal Nurse.

I Hospitals of over 200 occupied beds are grouped together because of the (now historic) significance of this figure in the grading of Matrons for salary purposes.

"Principal Nurse" means the principal registered nurse employed in an institution.

The three sub-groups comprise:

11 Chief Nurses

6 Supervising Principal Nurses

29 Principal Nurses.

The 1970's was a decade of considerable change in nursing in New Zealand. Reasons for this were:

1. Introduction and commitment to a national policy of increasing numbers of technical institute nursing programmes and intakes with associated decrease in hospital schools of nursing programmes and intakes;
2. Introduction of Government cost containment policies on health services;
3. Introduction of alternative organisational charts by hospital boards so that senior nurse administrators have altered role responsibilities and lines of authority;
4. Increasing professionalism and expectations of nurses and nursing.

These were national factors that were affecting the decision making environment of these senior nurse administrators. There were also more personal and traditional factors that could be affecting the incumbents of these positions, selection of new recruits to these positions and the types of decisions that were occupying the majority of these nurses' time as decision makers.

Traditionally, these senior nurse administrators had been responsible for nursing manpower and its education, and for

the nurses' service commitment to the employing authority. Since 1972 the role and functions of these senior nurse administrators appeared to have changed. The gradual phasing out of schools of nursing within the hospital service, the more active involvement with the accountability to the hospital or board administrator for finances allocated to nursing service and participation in decision making for overall board budgets, may have changed the focus of their work.

Also, since 1973 there was increased pressure for senior nurse administrators and potential senior nurse administrators to avail themselves of university education, e.g. Baccalaureate, Masters and Advanced Diploma programmes with specific nursing studies, business studies, research and psycho-sociological content as a means of developing the individual's knowledge base relative to their changing roles and organisational demands. There was also an increase in the tempo of industrial relations in the sphere of nursing service which was adding another dimension to the activities of senior nurse administrators.

#### Summary of Senior Nurse Administrator Responsibilities

Table 3.1 is a summary of senior nurse administrators' responsibilities over a period of 100+ years. It can be seen that the Second World War was a demarcator of change within nursing service and the role of the nursing service administrator. In the era 1940-1970 the effects of this change are denoted by diminution in responsibility in some of the categories.

The era, post 1970, has not been shown in Table 3.1 as there is not yet sufficient literature to make cross national comparisons. However, as the subjects of the research study in this thesis are New Zealand senior nurse administrators who were exposed to changes in nursing and the organisational structure of hospitals in the 1970's, it is important to refer back at this stage to the changes set out on p.3 of chapter

one where six areas of change have been described. The results of these effects can be summarised in the following table relating to the New Zealand scene.

TABLE 3.2: COMPARISON OF SENIOR NURSE ADMINISTRATOR RESPONSIBILITIES IN NEW ZEALAND HOSPITALS 1860 TO THE PRESENT DAY

Variable Categories	1860-1940	1940-1970	1970+
Status Power	High	Medium	Increasing-variable according to organisational structure
Decision making authority	High	Medium	Increasing-variable according to organisational structure
Financial Control e.g. Nursing Budget	High	Diminished	Increasing-variable according to organisational structure
Nursing Manpower Control	High	High	High
Nursing Education Hospital Schools	High	High	Diminishing
Domestic Supervision	High	Diminished	Nil
Patient Care Giver	High	Diminished	Nil
Patient Care Supervisor	High	Low	Nil

It must be emphasised here that comparison is only being made of senior nurse administrator responsibilities in large hospitals. In the New Zealand case this refers to hospital services with over 200 average bed occupancies. In the United States and Britain there are marked variations in the responsibilities and activities of Directors of Nursing Services/Divisional Nursing Officers of large hospitals compared with their smaller hospital counterparts. The same applies in New Zealand.

Table 3.2 demonstrates differences in the change process in the 1970's from that occurring in the period 1940 to 1970. Here there is evidence of a diminution in responsibility over time. In the 1970's there appears to be an increase and variation in intensity of responsibilities in all categories.

Tables 3.1 and 3.2 are representative of organisational design and structure that could be assumed to be organisational responses to external environmental influences and forces. Hospitals as organisations will now be discussed in some detail. Cross national comparisons will be used in order to demonstrate the type of organisations in which these Nightingale emissary nurse administrators were functioning.

#### THE NURSE ADMINISTRATOR IN HOSPITAL ORGANISATIONS

Traditionally, nursing and institutions for the care of the sick have had their origins in religious or military orders. Both of these services have had as their basis discipline of their members and strict compliance to rules and orders. It is not surprising that Weber's concept of rational legal bureaucracy, with emphasis on rules instead of individuals and competence over personal favouritism, as the most efficient basis for organisation, was seen to epitomise the organisation of hospitals and nursing services of the early part of this century.

Matrons were seen to be nursing leaders that reinforced the classical concepts of division of work, unity of command, authority and responsibility, span of control and delegation. Such was the organisational context for senior nurses as decision makers in the first half of this century in Britain and New Zealand.

### Hospitals in the United States

The Superintendents of Nurses in the United States had a somewhat different background perspective as they had gone much further in developing the professional model as an outgrowth of the Nightingale system of nursing. The medical profession were even more sophisticated in their professionalism. Therefore the authority of professional nursing or medical leaders in their organisations, in relation to decision making, often had to take account of differences between professional and bureaucratic authority. These differences were a result of the unusual relationship that existed between the formal authority of position, represented by the administrative hierarchy, and the authority of knowledge possessed by the professionals. In the United States there was also another difference in that the nurses were paid employees of the hospital, whereas the medical staff (except in the Veterans' Administration Hospitals) were paid by the patients they admitted and attended to in the hospitals. As a result, the organisational pattern was a dual pyramid with the administration hierarchy and the medical staff hierarchy existing side by side. Harvey L. Smith (1958) has described this pattern as the basic duality of hospitals. He maintains that two lines of authority - lay and professional - exists within the hospital. One line of authority is that hierarchy which extends from the trustees through the administrator and the department heads to the various employees of the hospital. The second is composed of the various professional persons in the organisation, especially the physicians. Although the physician may have little formal authority in the organisation, his actual authority is very great indeed. Rakich, Longest and O'Donovan (1977) maintain that generally the community general hospital is still organised in this way and have this to say:

The complexity of this pattern becomes evident when one considers that although people in the organisation have just one immediate superior (a highly desirable attribute of bureaucratic organisation), employees

such as nurses, take orders from their own head nurse who is a member of the administrative hierarchy, as well as from the medical chief of their respective service and individual physicians on the medical staff in regard to individual patients. (p.185.)

the 'typical' organisational pattern for a medium sized voluntary hospital also has the 'dual pyramid' aspect of organisation combined with a third component, namely the Board of Trustees, making up the organisational triad of the hospital (i.e. governing body, administrator and medical staff). In this organisational arrangement the nursing director was responsible to the administrator. One could imagine that the amount of power and control that each group could exert, if unchecked, could cause major difficulties in relationship to decision making. Rakich, Longest and O'Donovan (1977) describe the administrator in this system as the chief executive of the hospital who had the basic function of managing the inputs of the organisation (manpower, material, technology, information and capital) in order to achieve the desired output for the hospital.

All these varying organisational models are still in existence in the United States today. A more modern variation in some places is the matrix organisation. Here a project organisation (a structural means for focussing a large amount of talent and resources for a given period on a specific project) is super-imposed on a functional, hierarchical organisation. This provides a horizontal, lateral dimension for the traditional vertical orientation of the functional organisation.

The United States clearly has evolutionary evidence of Type X through to Type Y organisations (see Table 2.1) in response to increasing complexity of the health services in that country.

### Nursing and Hospitals in Britain

In Britain there were two types of organisational structure. In voluntary hospitals the matron was indeed the head of the nursing service and nurse training, with the hospital steward, or secretary, having the overall responsibility for the general administration. The doctors, on the other hand, were usually honorary and worked through committees and were responsible for purely medical problems (Baly 1980).

This tripartite system of control later became the accepted pattern for the National Health Service in 1946. The other type of organisational structure was seen in the Municipal Hospitals, which evolved from the Poor Law Infirmaries about which Baly (1980) had this to say:

Once medical care, rather than Poor Law relief, was established as the institution, the doctors wrested the ultimate power from the Matron and established a hierarchical administration under a 'Medical Superintendent' to whom both the nursing matron and the lay administration were subordinate. (p.296.)

The reason for the favouring of the tripartite system over the authoritarian system of executive power being dispensed downwards from a Medical Superintendent was reported to be because the medical profession preferred the system they had been used to in their voluntary hospital training schools. Also, they were opposed to the idea of one doctor exercising control over other doctors. Likewise, nurses equally disliked the idea of doctors having control over nurses. Miss Nightingale's philosophy was that in matters affecting nursing, Matron should be supreme.

### Nursing and Hospitals in New Zealand

The organisational structure of New Zealand hospitals, prior to the 1970's was very similar to that of the Municipal Hospitals in Britain prior to the establishment of the National



Health Service in 1946. The Medical Superintendent was the executive leader of the hospital which was organised according to bureaucratic principles. Matrons were subordinate to the Medical Superintendent and were autonomous in making decisions on nursing issues as long as they were compatible with the beliefs of the Medical Superintendent and the wishes of his medical colleagues. The medical staff were either full or part-time employees of the hospital and had line responsibility to the Medical Superintendent.

The Labour Government of 1972 put forward a proposal for a reorganised structure for health services in New Zealand, based on the principle that integration and comprehensiveness of services promotes better care. This was published as a White Paper titled "A Health Service for New Zealand" (1975).

Many of the proposals for reform were based on the British experience of the National Health Service, which caused negativism and adverse comments from professional and lay people alike. However, there was also much merit in the basic underlying principles for reorganisation. Of particular relevance to this thesis are the sections advocating the multi-disciplinary team approach at all executive levels, tripartite management and consensus decision making in relation to regional or district policy, refer paragraphs 446:447 which say:

The dominant characteristic of the health service, which must determine the methods of management (as opposed to administration) is the complexity of the services. This, together with the diversity of the skills of the staff employed, renders unrealistic the concept that a single officer might control and direct service management and development in any region or district. For example, if any one of the district officers were to be regarded as the 'Chief Executive' he would direct

and control the activities of all health services employees in his district, including administrative staff, nursing and paramedical staffs, technical staff and specialist staff. As a corollary he would also be ultimately responsible for the work of these staffs and would have to account for any shortcomings in the standards of, say, laundry services, financial accounts, recruitment and training of nurses, or the specialist medical care of patients. It would be undesirable and contentious for any single officer to be given such a range of authority and responsibility. Despite some erroneous current perceptions, no administrative officer in any of the present components of the health services has such a comprehensive range of responsibilities. (p.143)

These issues were further emphasised in a follow-up document "The Report of the Legal and Administrative Group to the Minister of Health" (1976) in which a succinct summary is given of their views on consensus decision making and team relationships as they related to justifications for reform of the present health service organisational structures. It was also pointed out in this Legal and Administrative Report that Wellington Hospital, under the influence of management consultant intervention, had indeed instituted the triumvirate management structure for decision making at top administrative level. However, at that stage the medical superintendent was the permanent chairman but the directorate were directly accountable to the Hospital Board. Nineteen-seventy-six saw a change of Government and the White Paper proposals were not developed. However, the National Government was still interested in a reorganisation of the health services and set up the Special Advisory Committee on Health Services Organisation (SACHSO, as it is generally known) to investigate the possibility of piloting a rural and a metropolitan regional health service utilising the principle of Area Health Boards. The Northland Project (rural) was conceptualised using triumvirate management and

consensus decision making principles and is currently reorganised this way. Therefore, there are two regions in New Zealand that have reorganised their hospital management structure, others that have modified their traditional bureaucratic structures and the remainder are still organised in strict hierarchies with medical leadership dominance.

Having discussed the types of organisational structure that have affected the functions and responsibilities of the nurse administrator over the last 100 years, the next section is concerned with organisational structure influence on the personality of the career oriented nurse administrator.

#### TRAINING TO BE A NURSE ADMINISTRATOR WITHIN A HOSPITAL ORGANISATION

Earlier in this chapter (p.15) emphasis was placed on the Nightingale influence on the training of the neophyte nurse administrator. Present day nurse administrators in New Zealand, Britain and the United States have all inherited elements of this influence. Another major effect on the developing personality of the career oriented nurse administrator is the effect of hospitals as bureaucratic organisations. In the main, present day hospitals are still organised as Type X organisations, although, as was seen in the United States, there is evidence of Type Y organisations being appropriate in modern day health services of increasing complexity (refer p.34). Hospitals have been typical examples of traditional bureaucratic organisations and it is only in the last decade that there has been any diversification or modification in organisational structure. Nurse administrators have not only been trained in the Nightingale discipline of nursing but have also been trained in rigid bureaucratic organisations. Prior to coming to train in hospitals, nurses have also been educated in schools which are

also bureaucracies. Therefore, they have already internalised a number of basic conformities and a general ability to conform more readily to the behaviours expected of organisational members. Standardised behaviour is achieved by discipline of members resulting in compliance to rules and procedures and ritualism as a recognisable personality trait. Displacement of goals is another consequence of bureaucratic conformity in that personal goals of organisational members are not always the goals of the organisation. This occurs as a defence against the organisational pressures that they are experiencing. Those persons who are not subjected to long term bureaucratic exposure or who are specialists within these organisations are less likely to indulge in goal displacement or ritualism. (Crozier, 1964.)

Robert K. Merton, in the 1940's, examined the effect of bureaucratic structure on personality and described the phenomenon of a "bureaucratic personality". Crozier (1964) examined two research groups; the Industrial Monopoly (private sector) and the Clerical Agency (public sector). He was able to demonstrate that bureaucratic behaviour, resulting from the way conformity and rationality has to be observed at all times, prevents intellectualisation of complex situations and predictability of future solutions of problems. This is manifested as a "trained incapacity". (p.185.) He also commented on the fact that extreme conditions of uncertainty tend to produce more conformity and rigidity of unpredictable solutions. The organisation, thus, tends to stabilise its equilibrium by emphasising impersonality of rules and centralisation of decision making. Power becomes very important to organisational members at times of uncertainty with resultant status seeking, hierarchical order and discipline, power over subordinates developing as means of social control and social order. This consequential behaviour is well depicted by Jay's "Corporation Man" (1972). Ritualism and the struggle for power and control in modern bureaucratic organisations is seen by Crozier (1964) as an individual's rational response to behaviour expected of him

by the organisation and does not have the negative connotations of over-conformity that is regarded as a professional deformation.

However, the trained behaviour of members of bureaucratic organisations has some implications in relation to the ability one has for being an innovator and responding to the uncertainty of the environmental influences within a system of bounded rationality.

The key issue is that with centrality of decision making and the power for making decisions being at the top of the organisation, it is very difficult for those persons going up through the ranks to be able to experience participation in decision making or be close enough to the environmental input to make decisions that are informed and rational. Therefore, a "trained incapacity" develops in relation to organisational decision making so that when the individual reaches the top of the hierarchy there is an internalised inability to process information in new ways and to develop creative strategies. It could be assumed that the longer a person remains in the ranks of the bureaucracy, the greater will be this incapacity. The power that accompanies the rise in status of the career bureaucrat often has a vicious circle effect of self-reinforcing behaviours by the bureaucracy attempting to regain stability and equilibrium within an environment of change is well discussed by Crozier (1964). The implications this has for nurses proceeding up the hierarchical career ladders to become administrators is very important. The early Nightingale trained nurse administrators were not in the career system for any great length of time before being administrators. Therefore, some of these young matrons and lady superintendents would have had more flexibility of outlook and behaviours than one could expect of nurse administrators who had been in the bureaucracies for several decades. Power, which cannot be suppressed by rationality, is characteristically a motivating and self-reinforcing behaviour of bureaucratic organisational members and can be typified in the nursing profession -

status seeking, badges or other symbolic insignia of office, discipline of subordinates, to mention but a few overt behavioural examples.

A research study for the Board of Health Report (New Zealand, 1974) on motivational factors influencing hospital nursing services showed:

- a high need for achievement is characteristic of students during the initial phases of nursing training;
- final year students in nursing tend to be more highly motivated by a need for power and influence than by a need for achievement;
- among full-time qualified nurses there is a strong positive relationship between length of service and need for power and influence.

(pp. 25-26.)

This shows that there is a tendency very early in a New Zealand nurse's career for him/her to assume a conformity to one of the prime bureaucratic behaviours, i.e. power. Maybe it is those persons who have a high motivating need for power who are attracted to working in bureaucracies of which hospitals are but an example. One can speculate that power which fosters dependency relationships can also affect the ability of nurses to invoke creative and innovative decision making strategies, in times of uncertainty and changing complexity of environmental influences, because of their lack of reality testing and practice during their hierarchical progress to the top.

ENVIRONMENTAL INFLUENCES ON THE NEW ZEALAND NURSE  
ADMINISTRATOR AS A DECISION MAKER

The first half of the century was a period when New Zealand matrons were very much preoccupied in their decision making activities with financial issues and nursing manpower and its education. In many respects these nurses were buffered from the issues in health services on a national basis, or even on a regional level. Their main focus was on their individual institution, making the money go round, getting enough hands to provide nursing care for the patients, seeing that the domestic housekeeping was of a high standard and overseeing the education of the nurses in training.

In 1970 the whole scene changed following the 1969 Review of Hospital and Related Services, the visit to New Zealand by WHO consultant on nursing education (Dr Helen Carpenter) in 1970 and the 3.6 Committee Report on Nursing Education in New Zealand in 1972, the escalation of technology and the specialist medical services that required nurses with differing skills and knowledge, the emphasis on individualised patient care, speedy return of the patient from hospital to the community, increase of nursing services in the community, to mention but a few of the changes having an impact on nursing and the administrators of nursing services. In the early 1970's the money supply in the national economy was good so nursing services were able to expand and new buildings for patient care mushroomed and the nurse administrator did not have too many pressures from the external environment but plenty of pressures from the internal environment.

In the latter half of the 1970's the national economy took a downturn and all health services as a result experienced restraint. The term "cost containment" became the spectre of the health services. Nurse administrators were no longer buffered, by their group membership and the organisation, from the impact of this painful force and were catapulted into the game of competing with other disciplines and institutions for scarce resources. Concurrently, there was

the phasing out of nursing education programmes within hospital schools of nursing causing much anguish and separation anxiety on the part of some nurse administrators. Nursing manpower issues took on a new complexion and complexity in that now Chief Nurses, Supervising Principal Nurses and Principal Nurses had to critically evaluate what they had, what they needed in the next five years, the implications of student nurse replacement with qualified nurses, and how much finance would be available. From 1978 the Health Service funding was in a no growth situation that was foreign to this group of nurse administrators.

Another issue of importance during this era was the Department of Health's issuing of Planning Guidelines for Hospital Beds and Services (1979), which gave estimations of how many inpatient beds per head of population were to be provided nationally and regionally. This was another new concept for administrators of health services to grasp. Up until then if a service was considered to be needed, the hospital enlarged its bed numbers and workforce to provide the service. Now such exercises were curtailed and had to be justified within the limits of the population census of the region.

Consumer demand and need became terms that had to be conceptualised in real terms by health services administrators and projects were mounted, e.g. Porirua Community Project piloted by Salmond in 1975, to provide insight into such issues. Government publications on Statistics, Trends, Health Indicators, Population Census, and Demographic Data, which were issued on a regular basis and in Special Report form, suddenly received much more attention by health services administrators who began to appreciate their significance and value in predicting requirements for patient services. University departments such as Nursing Studies, Business Studies, and Sociology at Massey University were also mounting Health Care projects involving staff and students.



Economic aspects of health services had been assuming increasing importance and significance for the health administrators of the 1970's both overseas and in New Zealand.

Klarman (1964) saw that Economics of Health or Health Economics infers a decision making process as a way of thinking about and approaching issues of public policy in financing and organising health services. This he saw as being specifically useful in the formulation of goals and priorities in deciding about CHOICES to be made about resources. Culyer and Wright (1978) identified a systems conceptualisation of the economic issues affecting health services. According to their perspective they saw that the input economic aspects of health services were finance, manpower and its education, environmental resources, consumer demand and need, demographic factors, such as population, health indicators (mortality and morbidity rates), trends, e.g. increasing age of population, decrease of chronically disabling infectious diseases. Output economic aspects of health services were seen to be an evaluation of the quality of care, efficiency and effectiveness of services, costs of medical care, health status of the population, i.e. production of health.

Although New Zealand health services are under the umbrella of the Welfare State, the medical profession are still the health workers who generate the major portion of the cost of health care, doctors prescribe drugs, doctors order batteries of tests, doctors utilise medical technology on an increasing basis as more sophisticated methods become available, doctors generate nursing workloads, doctors generate administrative workloads, and so it goes on. Outcome measures and evaluation tools as justification for action and "better" services were concepts not only being talked about by academics but also becoming a painful practical reality for health administrators having to justify funding of services. Treasury and the Health Department were the two Government Departments acting as significant forces of influence on the health services of the late 1970's in New Zealand. In the 'no

growth' health funding situation experienced in the latter part of the 1970's, 'transfer of resources' became another spectre for health service administrators. If a service needed to be created or expanded then it had to be at the cost of another service that was deemed to be not so cost effective or efficient.

Agencies considered to have specific monitoring effects on nursing during the decade of the seventies were the Health Department, Nursing Council, professional organisations and consumer groups. Prior to the 1970's the Health Department had the dual function of monitoring the nursing services of the country as well as being the registering body for nurses practising in New Zealand. The Nurses Act 1971 established the Nursing Council of New Zealand as a corporate body responsible for the registration of nurses and disciplinary matters in respect of those whose names are on the register. The professional organisations were becoming increasingly active in promoting and protecting the economic welfare and professionalism of nursing during the decade of the 1970's. Consumer pressure groups were also very active as watchdogs in monitoring the output aspects of health services and their effect on the health worker and patient during this period.

An evolutionary perspective of the nurse as administrator of nursing services and education in large hospitals has been developed in this chapter. In the final section particular emphasis has been placed on the critical issues affecting the health services of New Zealand at the time the research study for this thesis was being undertaken. In the next two chapters the primary activity of these senior nurse administrators, that is, decision making, will be discussed.

## CHAPTER FOUR

## THE ANATOMY OF DECISIONS AND DECISION MAKING

An overview has been presented in the preceding chapters of -

- the general characteristics of external environments and their response to change;
- the evolutionary change in function and responsibility of the nurse administrator in health care institutions;
- the change in the structure and design of health care organisations which have had an effect on the nurse administrator as a decision maker.

This chapter focuses on the type of decisions with which these nurse administrators are involved and which in turn may be vulnerable to the impact of environmental forces.

#### Definition of Decision Making

In Chapter One (p.2) mention was made of problem solving activities of nurses and the change of content and focus of such activities according to the hierarchical position or status of the nurse. Therefore, decision making by senior nurse administrators could be assumed to be synonymous with problem solving of an executive nature commensurate with the executive nature of the incumbent's position.

Likewise, Kast and Rosenzweig (1970) in defining decision making make these comments:

In task-oriented organisations, problem solving activities are often termed decision making. In this context it is sometimes considered synonymous with

managing - particularly if decision making is broadly construed to include searching out and recognising problem situations. It involves inventing, developing and analysing alternative courses of action. Analysis leads to the choice of a particular course of action and the decision is implemented. (pp. 343-344.)

### Hierarchy of Decision Making

If the quality of decision making and type of decisions to be made are commensurate with the hierarchical authority and position of the decision maker, then one can justifiably talk about a hierarchy of decision making. Reference to this concept has already been made in Chapter Two (page six) in relation to complex organisations, Thompson (1967) states that organisations exhibit three distinct levels of responsibility and control relative to decision making, i.e. technical, managerial and institutional. Kast and Rosenzweig (1970) talk about managerial subsystems and their implications for decision making. They nominate three subsystems - technical, institutional and organisational - as being identified as a hierarchy. Georgopoulos and Mann (1962) similarly discuss the supervisory skill mix in terms of technical, human relations, administrative skills, varying markedly across organisational levels. This skill mix is also arranged in a hierarchy in that a supervisor at the lower level of the organisation has a high degree of technical skill and a lower degree of administrative skill and vice versa for the administrator at the top of the organisation. Not only does the skill mix vary according to organisational levels, but it also varies according to circumstances. Early in the life of an organisation, technical and human relations skills are probably essential; later as the organisation becomes more complex, administrative skills become increasingly crucial. Georgopoulos and Mann (p.430).

Harrison (1975) also refers to levels of decision making in the following manner:

The scope of decision making is indeed wide. It commences at the level of the individual and extends to the deliberations of the groups that comprise the organisation. Organisations, in turn make up the overall system of the enterprise, which forms part of the total society and societies make up nation - states that espouse compatible or conflicting ideologies, the sum total of which constitutes the whole world.  
(p.11.)

Having established that there is a hierarchical structure associated with decision making, it may reasonably be assumed that the decisions themselves may also be typed and stratified.

#### Typology of Decisions

Decisions may be classified in many ways according to definitions that are propounded by -

- Simon (1960) - programmed and non-programmed
- Drucker (1967) - generic and unique
- Gore (1962) - routine, adaptive and innovative
- Delbecq (1970) - routine, creative and negotiated
- Thompson (1967) - computational, judgmental, compromise, inspirational strategies.

Harrison (1975) says that essentially each of the above schemes can be reduced into two basic categories involving the matched pairs of (a) routine and non-routine; (b) recurring and non-recurring; and (c) certainty and uncertainty). The following table replicated from Harrison shows all classes divided into two categories according to their structures and strategies. Further, Harrison (1975) says that Category I decisions are normally made at the level of operating management and middle management, and Category II decisions should be the province of top management.

TABLE 4.1: A CATEGORISATION OF DECISION CHARACTERISTICS

	Category I Decisions	Category II Decisions
Classifications	Programmable, routine, generic, computational, negotiated and compromise	Non-programmable, unique, judgmental, creative, adaptive, innovative and inspirational
Structure	Proceduralised; predictable; certainty regarding cause/effect relationships recurring; within existing technologies; well-defined information channels; definite decision criteria; outcome preferences may be certain or uncertain	Novel, unstructured, consequential, elusive and complex; uncertain cause/effect relationships; non-recurring; information channels undefined; incomplete knowledge; decision criteria may be unknown; outcome preferences may be certain or uncertain
Strategy	Reliance upon rules and principles; habitual reactions; prefabricated response; uniform processing; computational techniques; accepted methods for handling	Reliance on judgment, intuition, and creativity; individual processing; heuristic problem-solving techniques; rules of thumb; general problem-solving processes

Replicated - Table 1.1 (Harrison, 1975 p.14)

Another way of classifying decisions is according to Dale (1963) who uses the following organisational definitions:

- policy decisions which are very broad and underlie most of other decisions;
- administrative decisions which are those broad decisions on implementation of policy;
- executive or ad hoc decisions which are those decisions that executives make on a day-to-day basis.

McFarland (1964) similarly classifies decisions as basic and routine - basic being policy and routine being those decisions made on a day-to-day basis. Similarly, Simon's (1960)

classification of programmed decisions can be likened to routine or executive decisions and non-programmed decisions can be likened to basic or policy decisions.

The research study associated with this thesis will be concerned with Category II, or non-programmed, policy decisions made by senior nurse administrators.

#### ORGANISATIONAL CONTEXT OF DECISION MAKING

The authority and responsibility the decision maker has for making decisions relates to the incumbent power and control he/she has in the organisation. The foregoing cross national descriptions of hospital structures has outlined the similarity and differences of evolution of hospital structures and positional power of senior nurse administrators. Hospitals in the main are bureaucratic organisations which are dependent on -

1. a well-defined hierarchy of authority;
2. a division of work based on functional specialisation;
3. a system of policies and regulations pertaining to the duties of personnel in different positions;
4. a system of procedures that workers must follow in performing their tasks;
5. impersonality of interpersonal relationships;
6. selection for employment and promotion based on the individual's competence.

In this type of organisational structure the decision maker's authority and power are dependent on where he/she is in the hierarchy of the organisation. If he/she is at the top of the hierarchy then he/she has supremacy in decision making

and all those at lower levels of the hierarchy are subordinate and have decisions handed down to them. It is rare for nurses to find themselves in this position as it is usually the medical or administrative person or the governing body who has the ultimate authority and power in decision making. However, it is possible for nurse leaders to have equality of power in decision making with leaders of other disciplines in the tripartite executive management structure.

Matrix organisations are another variant of organisational structure that gives a nurse leader supremacy of control in decisions affecting nursing projects, but he/she is functionally responsible to the administrator. There are some matrix organisations where the nurse, medical and administrative leaders, are conjointly responsible to the executive or president for their organisational decision making.

In complex hospital organisations where there is a high degree of professionalisation of the medical staff, in particular, there is the duality of professional and administrative authority for decision making. Also, in these organisations the efficiency of the downward delegation of bureaucratic-administrative authority and the effectiveness of decision making is dependent on hierarchical coordination. Heydebrand (1973) has this to say:

The nature of hospital work processes and the importance of nursing within them suggests that the greater the degree of professionalisation, the greater the extent of delegation of authority so as to maximise the amount of discretion at the operating level. (p.231)

As a means of achieving this coordination and promoting professional accountability in decision making, some nurse leaders of hospital organisations that have high numbers of professional nurses on their staff have promulgated decentralised decision making.



Clifford (1981) sees this as one way for the nurse administrator to resolve the seemingly paradoxical views of managerial and professional accountability.

The organisational position of the nurse administrator and the relationship of this position to the decision making environment is very relevant to this thesis for the following reasons:

1. As a function of the closeness of the decision maker to the external environment, what influences will he/she be subjected to?
2. What other organisational members or groups will buffer her/him from these environmental influences?
3. What other organisational members or groups will assist her/him in decision making.
4. From whence and how will relevant information get to the decision maker?

#### SUMMARY

This thesis is concerned with the external organisational environment, the organisation itself, and the influence these may have on the executive decision made at the top of the organisational hierarchy. Therefore, it has been important in this chapter to identify the concept of hierarchical stratification of decision making and its relationship to types of decisions that are made in organisations. This relationship then relates to the discussions in previous chapters on organisational structure and the position and authority of the senior nurse administrator as decision maker within hospital organisations.

Open systems models are appropriate frames of reference in which to understand the executive decision maker's perception of changing environmental influences that may have an effect on their policy making activities. The following chapter will, therefore, be concerned with relevant models of decision making within a system's frame of reference.

## CHAPTER FIVE

## MODELS OF DECISION MAKING

It is generally recognised that decision making involves three aspects, i.e. -

1. the decision making process;
2. the decision maker; or
3. the decision itself.

For the purposes of this thesis, the focus will be on the decision maker who is operating in an open systems environment. Internal organisational environments will be unique variables for each senior nurse administrator according to locale of the organisation and the particular structure of the organisation, so little attention will be given to these variables. Of particular interest will be the external organisational environments that are being affected by national political, social and economic issues that could be reflected as change elements on the organisations and their executive decisionmakers.

#### Decision Making in General

Harrison's model (see Figure 5.1) depicts the relationship of the decision maker, as the essential element, within an open environmental system.

The economic system

The social system

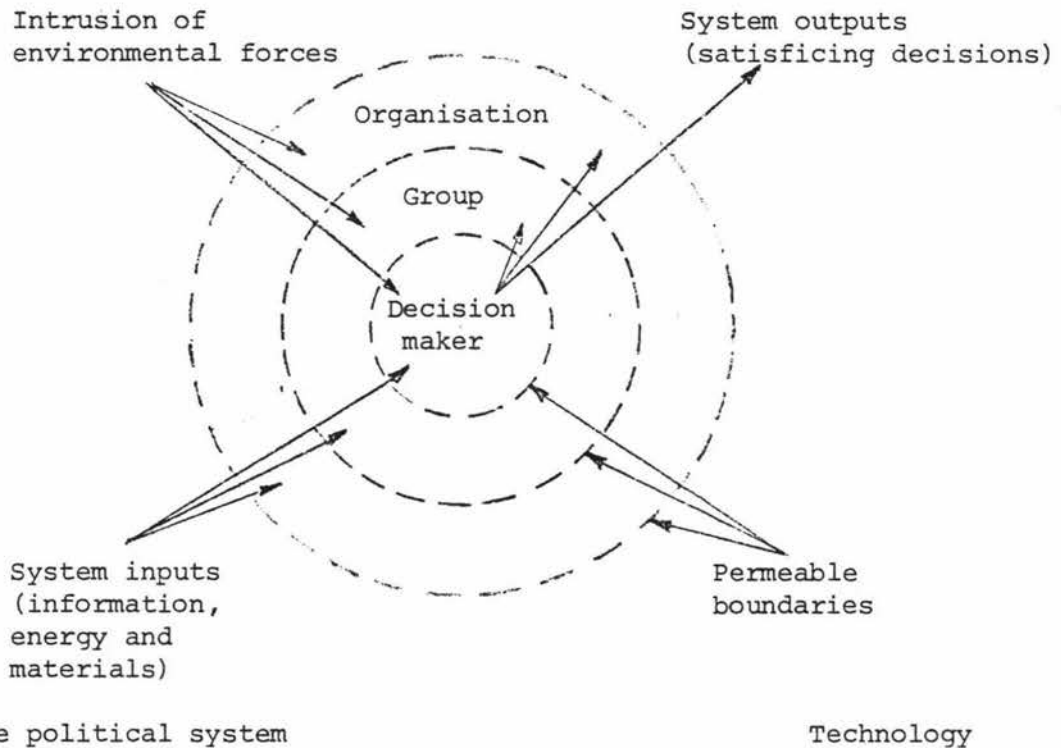


FIGURE 5.1: Decision Making in the Open Environmental System

Harrison (1975) sees that the environment should be considered as an -

open system within which the satisficing decision maker in a formal organisation functions as an essential element receiving inputs on the one hand and dispensing processed outputs on the other. The system inputs consist of information energy and materials, and the system outputs are the satisficing decision (p.85).

Harrison (1975) also sees that the decision maker needs to cope with the exogenous forces of politics, economics, society

and technology. The impact of these forces is somewhat buffered by the group membership surrounding the decision maker and the formal organisation itself. (See Figure 5.1.)

Likewise, Feldman and Kanter (1965) make the following statement -

Organisational decisions are constrained by the actions of the organisation itself, by the physical and mental characteristics and previous experience of its members, and by the social, political and economic environment of the organisation and its members. (p.619.)

Tannenbaum (1950) refers to the environment of decision as the decision maker's "sphere of discretion" which is limited by the structure and authority relationships that are unique to his organisation. Feldman and Kanter (1965) see such constraints as an important part of the decision environment for each organisational position and that the groups and institutions external to the organisation further limit organisational actions.

#### Decision Making in Nursing

Bailey and Claus (1975) view a systems model that is cybernetic in nature, i.e. has feedback of information, as a useful tool in assisting nurses to become better problem solvers and decision makers. Such a model is also useful for conceptualising and analysing the dynamics of the problem solving process. On this basis, they have developed the "Claus -Bailey Systems Model for Problem Solution". (See Figure 5.2.) Although the environment is not specifically mentioned in this model, Step 3 - specification of constraints, capabilities, and resources that are available to the decision maker, and the claimant groups who may be affected by the decision - has definite environmental connotations when considered in the light of the foregoing discussion.

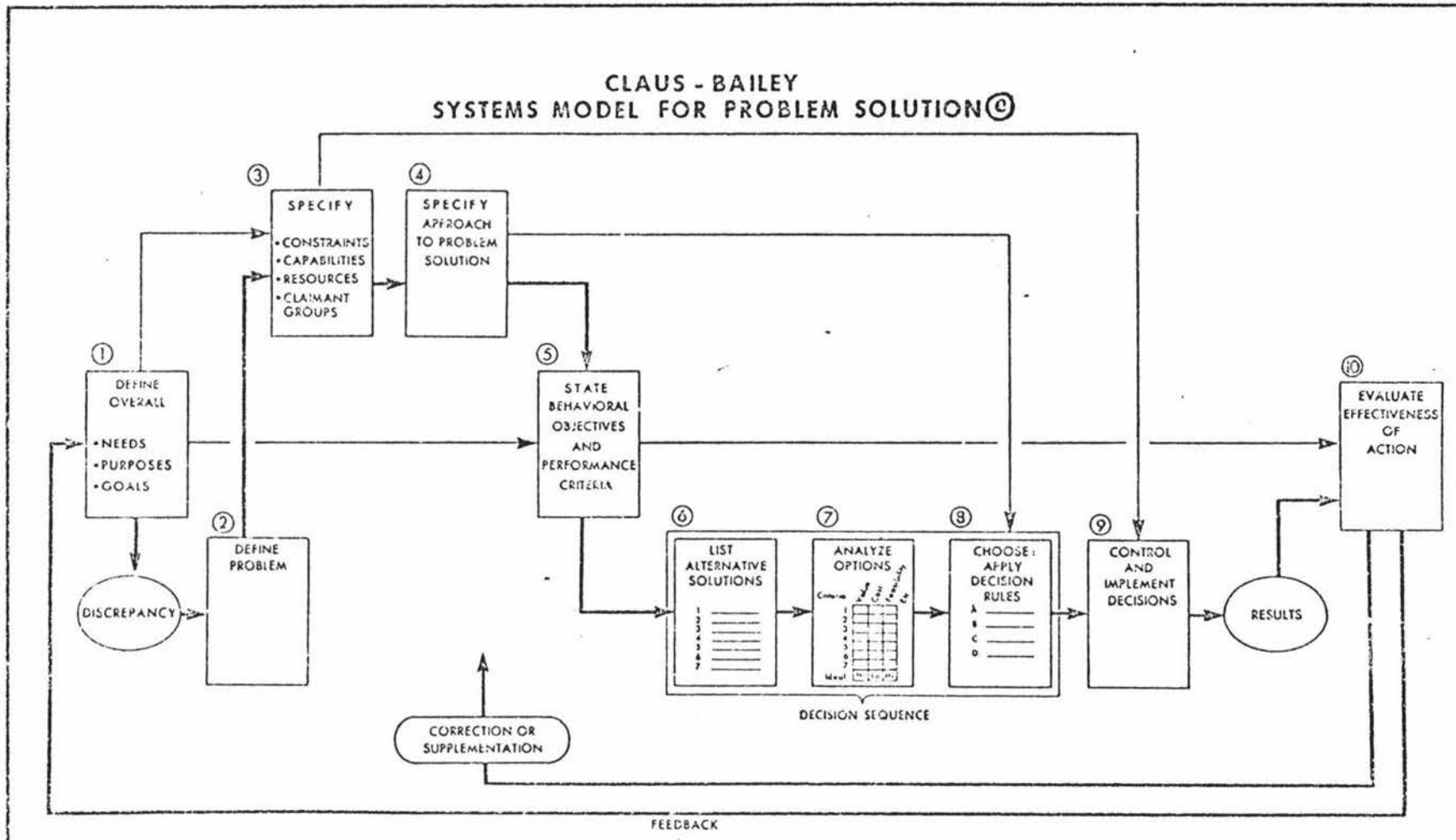


FIGURE 5.2: Replication of -  
 FIGURE 1: Claus-Bailey Systems Model for Problem Solution. (From Bailey, June T. and Claus, Karen E.: Decision Making in Nursing. The C.V. Mosby Co., St. Louis, 1975.)

Bailey and Claus (1975) open their chapter on analysing constraints, capabilities and resources by saying -

Before decision makers can develop an approach to solving a problem which has been defined, they must carefully analyse three major areas:

1. the constraints which operate on the decision maker, upon the organisation or upon the groups that will be affected;
2. the capabilities and resources available to the decision maker or the organisation; and
3. the interest groups that will be affected by the decision. (p.47)

They also emphasise that decision makers need to list the constraints within which they must work before an analysis of constraints can be performed. Often these constraint concepts can also be capabilities concepts depending on whether a negative or positive force is exerted on the decision maker, thus being single phenomena analysed through different perspectives. Bailey and Claus (1975) see that "categories of constraints and capabilities which should be considered include the following -

1. Time
2. Financial support
3. Equipment and facilities
4. Interaction and assistance within the organisation
5. Manpower
6. Outside assistance
7. The environment. (p.47)

Arndt and Huckabay (1975), in examining administrative theory applied to nursing within a systems frame of reference, have this to say:

For decades the nursing service administrator's functions have been defined as planning, organising, directing and controlling. How have these functions changed? The truth is that the functions themselves have not changed, but how we employ them has. The point of view can make a big difference in the way an administrator observes and relates the facts of a situation. Much depends on the administrative ability to establish an orderly relationship among factors in the social and economic environment, on the institution's purpose and standing within the community, and on the operation of the nursing service organisation. (p.18)

The Arndt and Huckabay model (see Fig. 5.3) uses administrative theory to explain the administrative process and the work environment with which administrators are concerned. The second part of the model emphasises the external environment from the following perspective -

A health care organisation does not exist in a vacuum. It exists in association with its environment, which provides resources and limitations. If the organisation is to remain socially useful and economically stable, it must continually adapt to its environment, which is constantly changing. Failure to adequately adapt to the environment is a major cause of organisation failure. (Arndt and Huckabay, 1975, pp. 22-23.)



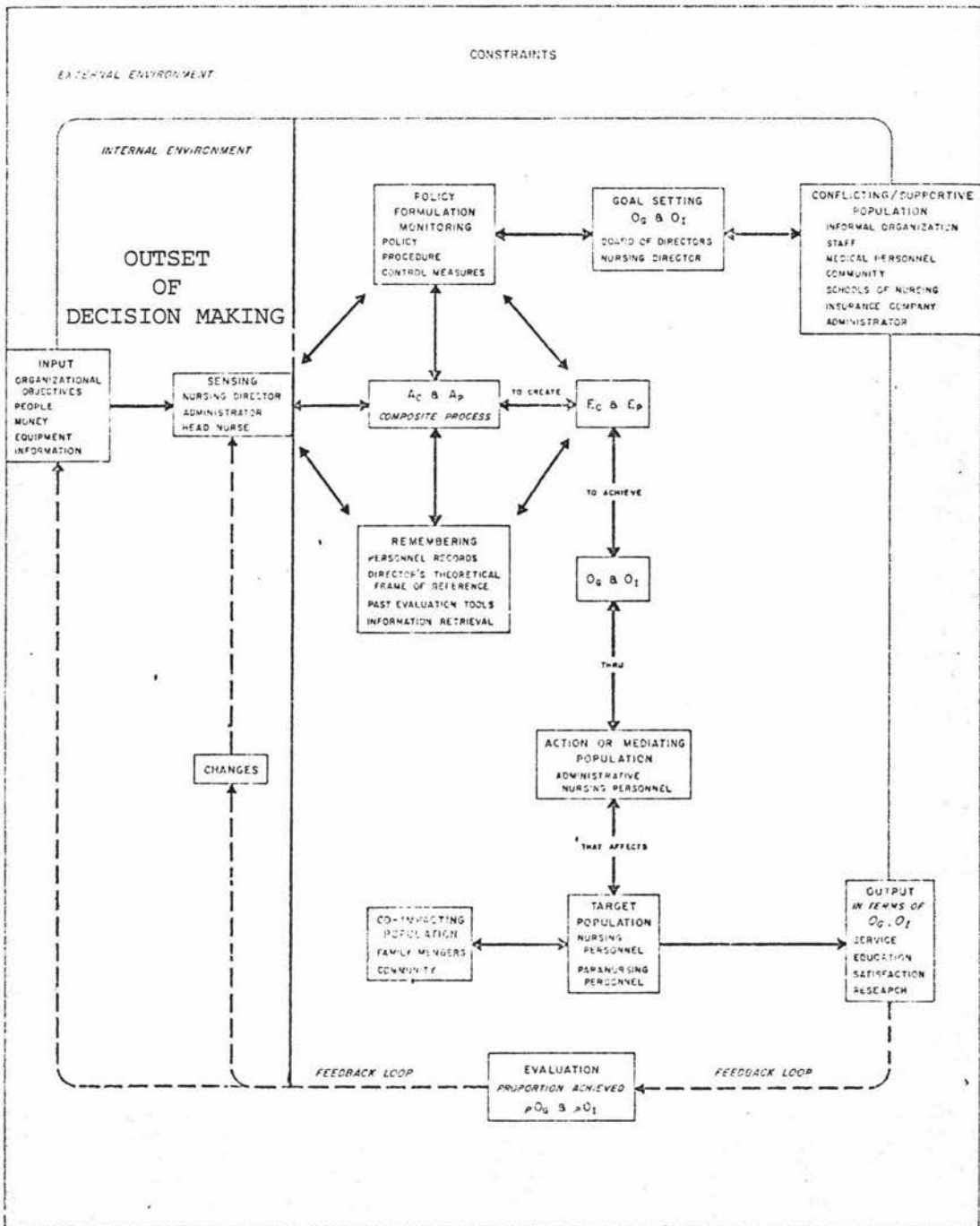


FIGURE 5.3: Fig. 2-1. Administrative model within systems frame of reference. (Adapted from Arndt and Huckabay, p.19.)

External environmental constraints influencing the nursing service organisation are seen to be divided into four classes: educational, sociological-cultural, legal-political, and economic. Arndt and Huckabay (1975) see that, by separating the external environmental constraints from the administrative processes, the concept of administration to administrative functions is narrowed and becomes a useful means for evaluating the administrator and for presenting what may make effective administration differ between varying environments. Identification of the decision maker's knowledge and perception of the environmental influences and resources, and how their importance is rated, would seem to be essential before analysing the decision making process itself. The section demarcated "outset of decision making activities" is the area of focus in the research study of this thesis. (See Fig. 5.3.)

#### Decision Making in Health Care Delivery Systems

La Patra (1975) in the introduction to his book "Health Care Delivery Systems Evaluation Criteria" has this to say -

An implicit assumption in writing this book, and the prime motivational factor, is that a detailed study of the health system, using systems methodology, would be a very useful aid to decision makers. (p.3)

At a later stage La Patra (1975) has this to say -

It is nearly impossible to talk about systems analysis without a frequent referral to models, In some ways the term modelling has become a generic term to be used in place of the phrase, 'The Systems Approach'. (p.54)

So far, Harrison's, Claus -Bailey and Arndt and Huckabay's Models - all using a systems approach - have been examined.

La Patra's Model of Patient Care (see Figure 5.4) likewise has been developed using the same approach.

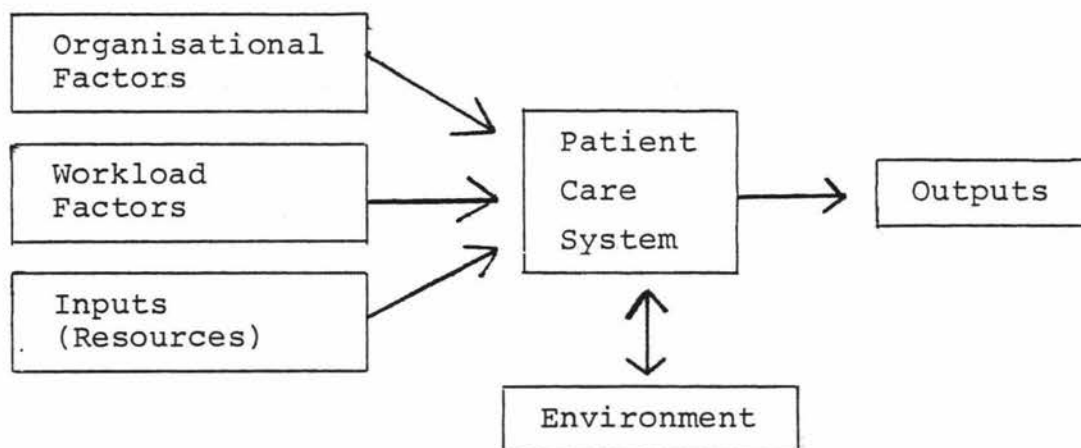


Figure 5.4: A Model of Patient Care  
(Replicated from La Patra, 1975, p.74.)

Here is a model (Figure 5.4) using a systems approach whereby the environmental component is shown as having a reciprocating effect on the process part of the system, namely the patient care system. La Patra (1975) states that the environment represents those influencing factors which are just beyond the boundary of the patient care system. For the purposes of this thesis, the administration of nursing services can be considered as a key aspect of the patient care system, with the nurse administrator being under the direct reciprocating influence of the environment. Organisational factors, workload factors and specified resource inputs will also have a direct effect on the nurse administrator, but all three of these components will be variables relevant to each institutional setting and specific to the decisions themselves. It is the purpose of this thesis to look at commonalities affecting the decision maker rather than specific variables from which it would be difficult to make generalised assumptions.

## SUMMARY

An issue highlighted by Harrison (1975) that has relevance in examining this group of nurse administrators is the environmental forces that impact on the decision maker in an open environmental system and the effect the decision maker's own group membership and the organisation itself has in buffering these effects. Bailey and Claus (1975), in their model have also focussed on the decision maker and have emphasised the importance of identifying and analysing environmental variables and their relative strengths at the outset of decision making. The effect the decision outcome may have on the environment has also been considered in these two models. Harrison (1975) sees that system outputs or satisficing decisions have impacting effects on the decision makers group membership, the organisation itself and also the environment. Claus and Bailey (1975) see that consideration of constraints, capabilities and resources, and claimant groups as forces on the decision maker at the outset of problem solving also have a control effect on the implementing of the decision and the evaluation of the outcome.

Arndt and Huckabay (1975) likewise have a focus on the decision maker, identified as the sensor of inputs such as data, observation, material and energy both from the organisation itself and the external environment. In their "Administrative Model Within a Systems Frame of Reference" external environmental forces are identified as constraints. Cited as an example of such a constraint is the economy and the financial status of the nation as a whole having a marked positive or negative effect on the budget of the organisation.

La Patra (1975) also using a systems frame of reference for evaluating health care delivery systems, identifies the patient care system as the core of his model. For the purposes of this thesis only the administration of nursing services aspect of the hospital based patient care system is being investigated. The decision maker of this system is the senior nurse administrator, i.e. chief, supervising

principal, or principal nurse. Here again, La Patra (1975) describes the mutual interaction of the environment and the patient care system on each other. He refers to the forces of the environment on the system as being those influencing factors which are just beyond the boundary of the patient care system. Therefore, he is not considering the external environment in such a wide perspective as has been done in the other models.

## CHAPTER SIX

## METHODOLOGY

Research Design

As stated on page 5 , the purpose of this research exercise is to identify activities undertaken by senior nurse administrators at the outset of their decision making on major policy and planning issues.

Figure 6.1 combines the concepts of the models described in Chapter 5 into a model that will be used as a basis for the research study in this thesis. It can be seen in the model that there are open systems within open systems thus enabling a free flow of forces and influences between the systems. The senior nurse administrator, as decision maker of the patient care system, is depicted as being the centre of groups of influences within groups of influences that have mutual interactions on each other and also act as buffering agents.

Senior nurse administrators of hospitals of 200+ average occupied beds or regional nursing services of major hospital boards are the group of decision makers being investigated in this study. Category II decisions, that is, those concerned with the formulation and planning aspects of policy issues are emphasised. Description of information - organisational, environmental and suprasystemic in origin - perceived as important by these senior nurse administrators, at the outset of their decision making activities, is germane to this research study. These nurses are also asked to identify whether they have a format that they generally use for organising this information. This research exercise is undertaken in 1979 at the end of a decade of considerable change affecting the health services of New Zealand and those responsible for their administration. Therefore, input and output economic aspects of health services are used as indicators of the relative importance of environmental and informational influences.

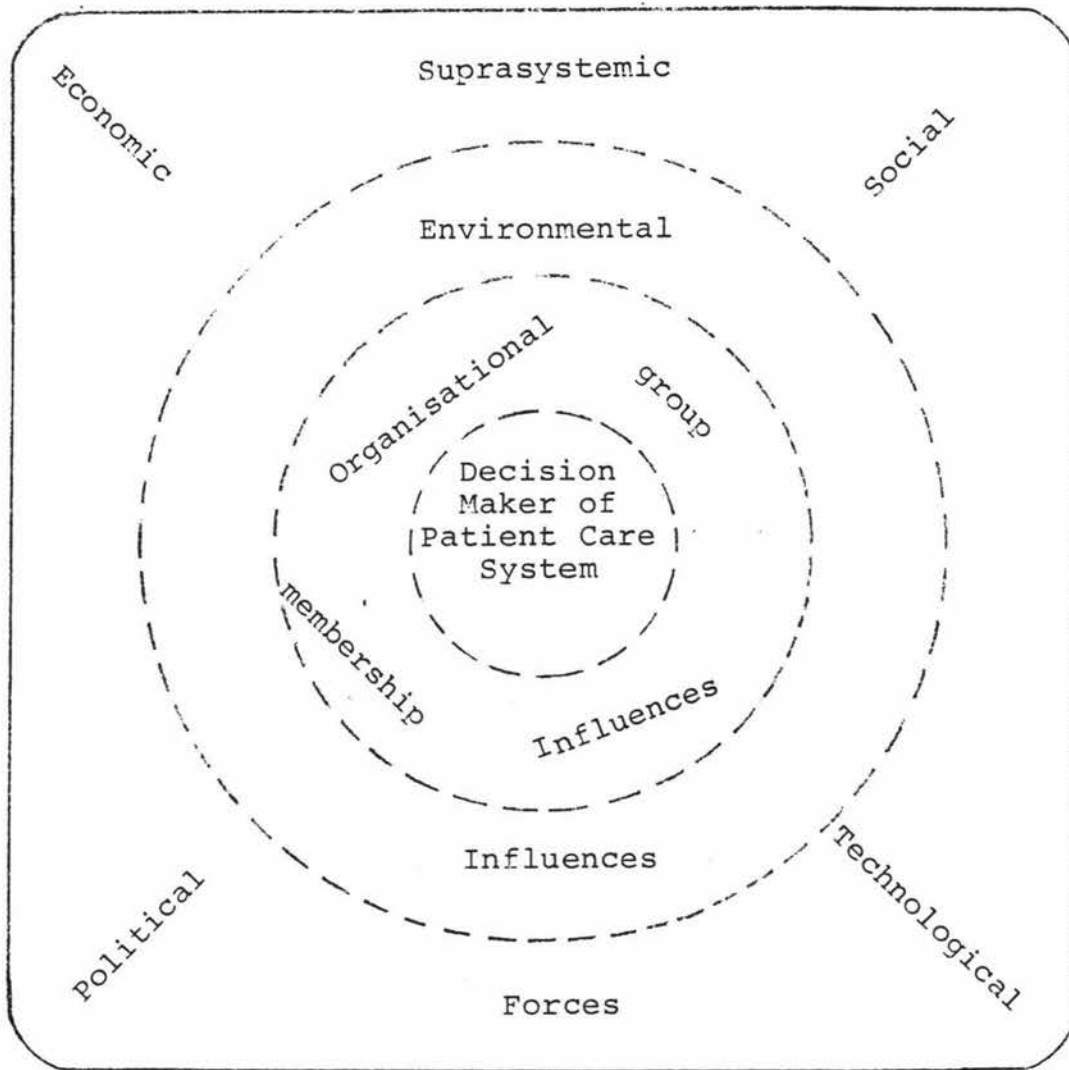


Figure 6.1: Conceptualisation of Environmental Influences and Forces Affecting the Decision Maker of the Patient Care System.

Empirical data about the organisational structure in which these nurses are functioning will also be collected as a means of identifying what positional power and authority they have for making policy decisions. Knowledge of what organisational groups surround them could also be significant in demonstrating possible buffers between the decision maker and the environment.

### Research Objectives

1. To collect baseline data about these nurses as follows:
  - 1.1 Who are these nurses? What are their academic and professional backgrounds?
  - 1.2 What is the structure of their organisations?
  - 1.3 What decision making authority do they have?
2. To identify from this baseline data:
  - 2.1 Sources and forms of information they use for decisions about policy issues?
  - 2.2 Whether they use frameworks for organising this information.
  - 2.3 Other group members.
  - 2.4 Constraints affecting their decision making processes.
  - 2.5 The kinds of inputs/outputs which influence their decision making, e.g. economic aspects of health services.

This baseline data is presented in three sections -

- A. Profile of the decision maker;
- B. Decision making environment;
- C. Specific indicator tests of decision maker's activities related to environmental influences.



### Subjects Chosen for the Investigation

In 1979 there were 46 nurses in appointed positions as chief, supervising principal or principal nurses of major regional or hospital nursing services within New Zealand. This total population was selected for the research study. Twenty-nine out of the 46 participated, i.e. 63%. Participation of members within the sub-groups was as follows:

- (a) Response rate within each group -
- Chief Nurses - 7 i.e. 64% (N = 11)
  - Supervising Principal Nurses - 5 i.e. 84% (N = 6)
  - Principal Nurses - 17 i.e. 59% (N = 29)
- (b) Proportion of total population participating in the research study (N = 29) -
- Chief Nurses - 24%
  - Supervising Principal Nurses - 17%
  - Principal Nurses - 59%.

### Location of Subjects

There are 29 hospital boards in New Zealand; 17 of these can be classified as major urban or rural boards as signified by the distribution of 11 Chief and six Supervising Principal Nurses used as subjects for this study. These boards are distributed throughout the length and breadth of both the North and South Islands.

The Principal Nurses, who are subjects for this study, are all responsible for hospitals within the major urban hospital boards except for the Lake Alice Hospital which is administered by the Health Department.

### Choice of Research Instrument

Individual responses from each of this group of senior nurse administrators were needed for this study. Therefore, the most appropriate method of data collection appeared to be that of eliciting oral or written responses to questions. Preferably the questioning would have taken place in a

face-to-face situation involving an interview with direct interaction between the researcher and the subjects. Interviews have the advantage of immediate follow up on responses, opportunity of probing for meaning and clarification of misunderstandings, improved cooperation and compliance by the subjects with a higher response rate generally being obtained.

These nurse administrators were geographically scattered over a wide area of New Zealand. Therefore, because of the time involved and the financial cost for the researcher, who had full time employment commitments, it was decided to forego the advantages of personal interviews with respondents.

Written response to structured questions is the other form of data collection that can be used. The problems encountered when considering the use of interviews also applied to the notion of personal delivery of the questionnaires. A mailed questionnaire turned out to be the research instrument of choice. Not only are mailed questionnaires more cost effective of the researcher's time and effort, but they also protect the anonymity of the respondents. Other advantages are that the respondents can complete the questionnaire in the period of time that is convenient for them, there is an absence of interviewer bias, less distribution bias and a better chance of truthful and thoughtful replies.

#### Construction of the Questionnaire (refer Appendix)

A six page questionnaire with a covering letter was set out in progressive form, i.e. with simple demographic detail questions on the first page through to more elaborate conceptual and descriptive detail on the last pages. Questions were in the main close-ended but with some questions allowing the respondents the opportunity to elaborate on reasons for their answers.

It was stated at the beginning of page one that the questionnaire related to the formulation and planning aspects of the respondent's decision making activities. This was

done in order to focus the attention of the respondents on these particular aspects. By inference, it was expected that respondents would then exclude the implementation and evaluation aspects of the decision making process. Also, the assumption was made that in asking respondents to consider decisions that involved formulation and planning that they would consider that on the spot decisions about immediate management problems or ad hoc decisions were exempt from consideration in this questionnaire.

Respondents were also asked to answer the questions concisely and descriptively.

#### Personal Profile of the Decision Maker - Questions 1-5

Information being elicited was -

1.           What nursing administration position do you hold?  
As there were three groups of nurse administrators being studied, it was necessary to know which group the respondent belonged to.
  
2.           For how long have you held this position?  
For this question it was decided to divide the time frame into four categories, i.e. less than one year, 1-5 years, 6-10 years, more than 10 years. With a small sample, i.e. 46, if this grouping had not been done initially it would have been done at the time of data analysis as unitary results of responses in several categories is statistically unmanageable.
  
3.           What educational qualifications do you have?  
Also asked to state the year respondent qualified. Only tertiary educational qualifications were asked for and individually nominated.  
  
As this was a decade in which new university programmes had been developed, especially for nurses and health administrators, it was considered by the researcher as significant to elicit how many of

these senior nurse administrators had availed themselves of such programmes.

4. What nursing qualifications do you have?  
Also asked to state the year respondent qualified.  
As this was a decade in which basic nursing programmes were being phased into institutes for general education, and bridging programmes were being offered to already registered nurses in order that they may be eligible for comprehensive registration, it was seen as pertinent to enquire as to which of the respondents had availed themselves of nursing programmes giving them additional qualifications or comprehensive registration.  
This question was also asked to get profile information on these administrators' nursing background.
5. How many years have you been nursing?  
Here again, the time frame was divided into categories thus: less than 15 years, 15-20 years, 21-25 years, 26-30 years, 30-35 years, 36-40 years, more than 40 years, for ease of data analysis.

The turnover in senior nursing administrative positions early in the century had been high in New Zealand. This was followed by an era of nurses having 30+ years of nursing service on appointment to Matrons' positions and staying for long periods of time in these positions. It was the researcher's intention to investigate if this was indeed still so in this period of transition. The respondents were not directly being asked to state their ages at this point in time or when they were appointed to their present position, but information gained from responses to questions two and five would be an indirect method of acquiring such information. Similarly, results from questions two and five give some idea of the turnover rate in these positions.

Decision Making Environment (Questions 6-12)

Some of the questions were eliciting factual data about their decision making environment, while others were eliciting responses influenced by the individual's perceptive judgment of her/his environmental influences.

Information being elicited was -

6. How many institutions are under your control?  
It is important to know the sphere and scope of the decision maker's environment.

7. To whom are you directly responsible for your decisions?  
Respondents are asked to tick one of the nominated categories - Chief Nursing Officer, Medical Superintendent, Hospital Board, Superintendent-in-Chief, Directorate (or similar decision making body - state composition of personnel of this body), or other personnel (please identify).

This question was asked as a means of ascertaining information about the organisational context in which the respondent was a decision maker. It was already known by the researcher that some senior nurse administrators in New Zealand were directly responsible to medical personnel and that some supervising principal nurses were directly or jointly responsible with the medical administrator to the Hospital Board. Hence the rationale for nomination of categories. Also, it was known that some senior nurse administrators were in triumvirate decision making teams who were jointly responsible for their decisions about Board policy and directly responsible for policy on nursing services to the Board itself. If there was any confusion in answering this question it would be checked with the job description that respondents were being asked to send with their completed questionnaire.

8. & 9. These questions relate to sources of information, i.e. where does it come from, with the respondents free to name the sources, and what form does it take, is close ended and categories are nominated. In the discussion on systems models for decision making, much emphasis has been put on input data, information sources and environmental information that influences decision making at the outset of such an activity. Therefore, Questions eight and nine are devised to ascertain what sources and forms of information the subjects will perceive as relevant for their decision making.

10. Do you have a model, process, framework, which you generally adopt for decision making?

This was a question which asked for very personalised information in the form of three alternatives - yes, no or don't know - those answering 'yes' were then asked to elaborate on its format. This was an era when administrative and nursing theory, ideologies and professional practitioner approaches are very much centred around models, processes and frameworks. Therefore, the researcher was concerned to find out whether the subjects were using models, processes or frameworks for decision making. It was not the intention of the researcher to be judgmental of the subjects and, therefore, this question in particular, demonstrated the advantage of using a mailed questionnaire which eliminates interview bias.

11. Do you have any formal planning group(s) in your organisation?

This question was devised to elicit responses on other group membership that may act as a buffering agent to other environmental influences and information.

12. What are the organisational constraints that affect your decision making process?

A table was used for the respondents to nominate their responses. This format contains, delineates and limits the responses of the subject in a way that cannot be achieved using an open ended question. It also makes for ease of data analysis but has the disadvantage that the respondent cannot elaborate on their interpretation of the question or on the perceptual judgment of the concept "organisational constraints". However, it was used as a means of testing the subjects' feelings about their environment and what they perceived as impedance forces having impact on their decision making activities. As pointed out by Bailey and Claus (1975), constraints concepts can be perceived as the negative correlates of capabilities and may in many cases be single phenomena viewed through different perspectives.

#### Specific Indicator Test of Decision Maker's Activities

(Questions 13, 14, 15)

The following is the rationale for using economic aspects of health services as indicators.

It was assumed by the researcher that these senior nurse administrators who were being subjected to the impact of economic and planning aspects of health services and their implications in the 1970's, that definition of the input and output economic aspects of health services would be unnecessary because of their working knowledge and experience.

It was of importance to the researcher to test the subjects' ability to compare the strengths of these aspects when grouped together and relate them to affects they had on respondent's decision making. Here was an attempt to prescribe a means of analysing how these senior nurse administrators perceive the feedback effect of this information as an environmental factor influencing their decision making.

The format used for Question 13 relating to input economic aspects of health services, and Question 14 relating to output economic aspects of health services, was as follows.

Aspects were nominated, but not defined. This was followed by a checklist in which the respondent was asked to indicate how each of these aspects affected their decision making processes using the categories, not at all, minimal, some, considerable, and very considerable. These categories were selected according to the principle of semantic differentiation (Snider and Osgood )1969), Osgood, Suci and Tannenbaum (1971). The disadvantages of using a checklist format such as (1) there is no opportunity for the respondent to classify his/her judgments; (2) it is a rigid method in both the question and the response, and (3) the respondent is required to make a forced choice of response, were outweighed by the advantages of being a suitable pen and paper test that could be done by mail and that the resulting data would be in a discrete form rather than in a continuous form because the subject either does or does not consider the aspect has effect on his/her decision making. The subjects were then asked to elaborate on all the aspects checked as having "considerable" or "very considerable" effects on their decision making. In describing these effects it was hoped that respondents would be able to articulate some of their experiential feelings about the impact of these environmental forces.

In light of the functions of the senior nurse administrator as a decision maker it was intended that these two questions, 13 and 14, would demonstrate the ranking of effects of the aspects in such a manner as to indicate whether finance, manpower and its education were still the main concerns or whether other aspects were having equal or greater effect on these nurses' decision making processes.

#### Question 15 -

Please identify and describe the main issues that you are involved with in formulating a manpower policy for your



organisation/institution/institutions. Where possible, please include any decision making model or frameworks or processes that you have found appropriate in your planning and policy making for manpower issues.

This particular economic aspect of health services was selected for the respondents to focus on in an open ended question - the only one of its kind in the questionnaire. This question was on the last page and practically a whole page was allocated space in which the respondent could give a descriptive answer.

It was included as a practical exercise for the subject to describe a model, process or framework that they may be using currently. If they do generally have one, then surely they will use it in relation to manpower policy which is an aspect consuming much of the present day administrators' time.

At the bottom of page six of the questionnaire, respondents were asked to furnish the researcher with a copy of their job description. This was asked for so that lines of responsibility could be checked on, if necessary, when analysing the data.

#### Pretest of Questionnaire

This issue was carefully considered and decided against because of prejudicing the very small population that was available for the main research. This posed some difficulties in guaranteeing the validity and reliability of the instrument. The issue of having such a small number of subjects meant that the data would not be analysed using statistical correlations but percentage comparisons would be used instead. Taking all these factors into account, the decision was made not to do a pilot study where not only would the instrument have been pretested but a trial run of the methodology could also have been done. Preservation of the total population for use in the research study was of critical importance.

Method of Distribution of the Questionnaire (refer Appendix)

A covering letter was sent with each questionnaire assuring respondents of confidentiality and anonymity. Respondents were also asked to state if they wanted a brief note of the findings. The questionnaires were sent by mail on 29 October 1979 with an enclosed stamped addressed (Post Office Box number) envelope for return of the questionnaire within two weeks of receipt by the respondents; (46 senior nurse administrators). It was hoped that the enclosure of a self addressed envelope would encourage respondents to reply, and by sending it to a box number that there would be no fear of mail getting lost from a residential mailbox. All mail to the respondents was addressed to their business addresses.

The researcher then went on vacation for 12 days. On return there were 20 questionnaires awaiting collection and six more questionnaires were returned over the next few weeks. Some respondents apologised for the delayed replies, but they had been on vacation. The respondents from the researcher's own area asked for extension of time and this was granted.

## CHAPTER SEVEN

## PRESENTATION OF DATA

Format

The three sub groups - chief, principal and supervising principal nurses - are represented as the first three categories in most of the tables. The fourth category is the total number of respondents/responses represented as the total group. In the main, it is the fourth category that is of significance for interpretation of data. The other three sub groups are preserved for demonstration of patterning of responses that may differ from the total group pattern.

You will note that not all the tables total the same number. This variation reflects non-responses to some items on the questionnaire or cases where the respondent has nominated multiple responses within the question.

Where possible, detail has been preserved, but grouping of similar responses into broader categories has been done in order to reduce the distortions which occur with small numbers.

Most categories of responses have totals of less than 50. Therefore, it is not valid to represent the results in percentages corrected to one decimal place. This would imply a degree of accuracy of results that is not possible with such small numbers being represented as percentages. In rounding the percentages to whole numbers it is not possible for the totals to always equal 100 per cent.

In all cases the number of responses (N) quoted in the heading of the tables refers to the responses for the total group.

Response Rate

The response rate to the questionnaire was 63%.

Proportion of total population (N = 29) participating in the research study:

Chief Nurses	-	24%
Supervising Principal Nurses	-	17%
Principal Nurses	-	59%

Profile of Decision Maker

TABLE 7.1: FREQUENCY DISTRIBUTION OF LENGTH OF TIME RESPONDENT HAD BEEN APPOINTED TO PRESENT POSITION (N = 29)

Respondents	Length of Time Appointed to Position			
	1 Year	1-5 Years	6-10 Years	10 Years
No.	2	13	8	6
%	7	45	27	21

NOTE: The majority, i.e. 79%, have been appointed to their present position during the decade of the 1970's.

TABLE 7.2: FREQUENCY DISTRIBUTION OF TYPE OF TERTIARY QUALIFICATIONS HELD BY RESPONDENTS

Type of Qualification	Number of Respondents with Tertiary Qualifications		
	Complete	Partial	Total
Baccalaureate	4	2	6
Diploma of Health Administration	6	4	10
SANS Diploma	28		28
Other Diplomas	4		4

NOTE: The 29 nurses acknowledged a total of 48 post basic qualifications between them. Only one chief nurse did not have an SANS Diploma but had a baccalaureate degree. Fifteen of these 29 nurses (52%) have both an SANS Diploma and a partial or completed baccalaureate degree or diploma in health administration. None of the nurses participating in the study have a Masters degree or a diploma in nursing studies.

TABLE 7.3: FREQUENCY DISTRIBUTION OF CATEGORY OF NURSING IN WHICH RESPONDENTS ARE REGISTERED (N - 70)

Respondents	Category of Nursing					
	General	Obstetric	Mid-wifery	Psych-iatric	Psycho-paedic	Compre-hensive
Total No.	28	20	18	3	1	Nil
Total %	40	29	26	4	1	Nil

NOTE: Only one principal nurse does not have a general registration, but has a psychopaedic registration. At least 62% of all the subjects have double registrations. None of the subjects have comprehensive registrations.

TABLE 7.4: FREQUENCY DISTRIBUTION OF PERIOD OF TIME RESPONDENTS HAVE BEEN NURSING (N = 29)

Respondents	Period of Time in Years					
	15-20	21-25	26-30	31-35	36-40	Did Not Answer
Total No.	4	6	3	13	2	1
%	14	21	10	45	7	3

NOTE: 52% of these nurses have been nursing for more than 30 years.

TABLE 7.5: FREQUENCY DISTRIBUTION OF NUMBER OF INSTITUTIONS UNDER CONTROL OF RESPONDENTS (N - 29)

Category	N		Numbers of Institutions										
			1	2	3	4	5	6	8	9	19	28	
Chief	7	No.							1	1	3	1	1
		%							14	14	43	14	14
Principal	17	No.	12	3	2								
		%	70	18	12								
Supervising Principal	5	No.			1	2	1	1					
		%			20	40	20	20					
Total Group	29	No.	12	3	3	2	1	2	1	3	1	1	
		%	41	10	10	7	3	7	3	10	3	3	

NOTE: All of the Chief Nurses had six or more institutions under their control. Supervising Principal Nurses had between three and six institutions under their control. All of the Principal Nurses had between one and three institutions under their control.

TABLE 7.6: FREQUENCY DISTRIBUTION OF ADMINISTRATIVE AGENCY OR PERSON TO WHOM THE RESPONDENT IS DIRECTLY RESPONSIBLE FOR DECISIONS (N = 42)

Category	N	Administrative Agency or Person					
			Chief Nurse	Hosp. Board	Med. Sup in Chief	Med. Sup.	Directorate
Chief	12	No.		5	2	2	3
		%		41	17	17	25
Principal	24	No.	11	3		8	2
		%	46	13		33	8
Supervising Principal	5	No.			1	4	
		%			20	80	
Total Group	42	No.	12	8	3	14	5
		%	29	19	7	33	12

NOTE: Some of the respondents nominated that they were responsible to more than one of the above categories. Of particular interest are the 17 nurses - four Chief Nurses, eight Principal and five Supervising Principal Nurses, who stated that they were directly responsible to a medical administrator for their decisions, i.e 58% of the total respondents.

TABLE 7.7: FREQUENCY DISTRIBUTION OF INFORMATION SOURCES FOR MAKING POLICY DECISIONS  
 - AS IDENTIFIED BY RESPONDENTS (N = 140)

Category	N		Type of Information Source											
			Health Dept/ Nsng C'cil	Hosp. Bd & its Depts	Nsng Staff	Med. Staff	Admin Staff	Multi-disc. Staff	Employee Organisations	Consumer Groups	Community Health	Meetings & Conf.	Literature	Reports Stats Research
Chief	42	No.	7	1	9	2	3		3	3	3	3	5	3
		%	17	2	21	5	7		7	7	7	7	12	7
Principal	80	No.	13	12	13	6	4	6	3	6	3	4	3	7
		%	16	15	16	7	5	7	4	7	4	5	4	9
Supervising Principal	18	No.	4	3	4	2	1		1			1	1	1
		%	22	17	22	11	5		5			5	5	5
Total Group	140	No.	24	16	26	10	8	6	7	9	6	8	9	11
		%	17	11	19	7	5	4	5	6	4	5	6	8

NOTE: It can be seen that for all categories of respondents the most common information sources were:

The Department of Health and the Nursing Council (17%) together with their own nursing staff (19%). The next most frequently mentioned information source is the Hospital Board and its Departments (11%). The frequency of mention for the other information sources varied from 8% to 4%.



TABLE 7.8: FREQUENCY DISTRIBUTION OF THE FORM THAT INFORMATION IS RECEIVED AS IDENTIFIED BY RESPONDENTS (N = 140)

Category	N		Form of Information					
			Research Exercises	Surveys	Formal Reports	Group Discussions	Individual Discussions	Other
Chief	42	No.	7	7	7	7	7	7
		%	16	16	16	16	16	16
Principal	85	No.	15	17	15	17	15	6
		%	17	20	17	20	17	7
Supervising Principal	24	No.	3	5	4	5	5	2
		%	12	20	16	20	20	8
Total Group	151	No.	25	29	26	29	27	15
		%	16	19	17	19	18	10

NOTE: "Surveys" and "Group Discussions" were the most frequently nominated responses, i.e. equally with 19%. The response rate for the other categories varied from 18% to 16% except for category "Other" which was only 10%.

Category "Other"

The Chief Nurses specified the following forms as: reading (journals and nursing books), general observations, past experience, discussions with colleagues, policy statements and guidelines, general literature.

The Principal Nurses specified the following forms as: informal; "backdoor method"; Board meetings; memos from Board, Chief Nurse, Medical Superintendent and letters (written requests); formal meetings (nursing and multi-disciplinary).

The Supervising Principal Nurses specified the following forms as: literature, other Hospital Boards.

TABLE 7.9: FREQUENCY DISTRIBUTION OF IDENTIFICATION OF MODEL, FRAMEWORK, PROCESS USED FOR DECISION MAKING BY RESPONDENTS (N = 29)

			Nominated Response		
Category	N		Yes	No	Don't Know
Chief	7	No.	3	3	1
		%	43	43	14
Principal	17	No.	13	4	
		%	76	24	
Supervising Principal	5	No.	2	3	
		%	40	60	
Total Group	29	No.	18	10	1
		%	63	34	3

TABLE 7.10: FREQUENCY DISTRIBUTION OF TYPE OF DECISION MAKING FORMAT USED BY RESPONDENTS (N = 18)

			Type of Format				
Category	N		Problem Solving	Communi- cation	Group Discussion	Planning	Nursing Process
Chief	3	No.	1	1		1	
		%	33	33		33	
Principal	13	No.	3	1	4	4	1
		%	23	7	31	31	7
Supervising Principal	2	No.	1		1		
		%	50		50		
Total Group	18	No.	5	2	5	5	1
		%	26	11	26	26	11

NOTE: Those respondents answering "Yes" (see Table 7.9) were then asked to elaborate on the format of the model, process or framework that they used for decision making.

In some cases it was difficult to categorise the respondents' answers to this question. However, most of the respondents actually named their approach as one of the following: "Problem Solving", "Communication", "Group Discussions" or "Nursing Process" and others alluded to a recognised "Planning" framework or stated it as such. A face-to-face interview would be needed for verbal elaboration on what they meant.

TABLE 7.11: FREQUENCY DISTRIBUTION OF IDENTIFICATION OF FORMAL PLANNING GROUPS IN RESPONDENTS' ORGANISATIONS (N = 29)

			Nominated Response		
Category			Yes	No	Don't Know
Chief	7	No. %	7 100		
Principal	17	No. %	16 94	1 6	
Supervising Principal	5	No. %	5 100		
Total Group	29	No. %	28 97	1 3	

TABLE 7.12: FREQUENCY DISTRIBUTION OF FORM OF PLANNING GROUP AS IDENTIFIED BY RESPONDENTS (N = 62)

Category	N	Form of Planning Group							
		Nsg Admin and Service	Board Planning and Advisory	Co-Ordinating Committees	Executive Committees	Nursing Education	Budget	Institutional Planning	
Chief	21	No.	7	6	2	3	3		
		%	33	28	9	14	14		
Principal	32	No.	9	4	2	3	3	5	6
		%	28	12	6	9	9	15	19
Supervising Principal	11	No.	3	2	2	1	2	1	
		%	27	18	18	9	18	9	
Total Group	64	No.	19	12	6	7	8	6	6
		%	30	19	9	11	12	9	9

**NOTE:** Forty-seven per cent of respondents identified that they had formal planning groups in their organisations. Table 7.12 demonstrates the form of these planning groups. Thirty per cent of respondents identified nursing administration and service groups. As can be seen in Table 7.12, other forms of planning groups were less frequently mentioned (19% - 8%). Budget planning groups would appear to be only characteristic of institutions as the Chief Nurses made no mention of them. Of the combined responses made by Supervising Principal and Principal Nurses (N = 43), Budget Groups only account for 14% of these responses. The 11% of responses attributed to executive committees are mainly correlated with those respondents making mention of being members of triumvirate or directorate executive decision making groups (i.e. five cases - see Table 7.6). The 12% of responses for nursing education will only apply to those hospitals and regional nursing services that have schools of nursing.

TABLE 7.13: FREQUENCY DISTRIBUTION OF TYPES OF ORGANISATIONAL CONSTRAINT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 55)

			Types of Organisational Constraint							
Category	N		Information Co-ordination	Professional Ethics	Size of Organisation	Regulations & Policies	Financial Resources	Manpower Resources	Time	Organisational Structure
Chief	14	No.	1		1	2	3	2	3	2
		%	7		7	14	21	14	21	14
Principal	32	No.	6	2	1	5	8	8	2	
		%	19	6	3	15	25	25	6	
Supervising Principal	9	No.	1	2		2	3			1
		%	11	22		22	33			11
Total Group	55	No.	8	4	2	9	14	10	5	3
		%	14	8	4	16	25	18	9	4

NOTE: Respondents generally identified more than one constraint. It was possible to categorise these constraints according to eight categories, selected by the researcher, as depicted in Table 7.13. Financial Resources (25%) and Manpower Resources (18%) receive the most frequent mention. However, Manpower Resources is not mentioned at all by the Supervising Principal Nurses. Time (21% of responses for the sub group) is seen by Chief Nurses as being a constraint worthy of mention as frequently as Financial Resources.

TABLE 7.14: FREQUENCY DISTRIBUTION OF AGENCIES OF CONSTRAINT ON RESPONDENTS' DECISION MAKING PROCESSES (N = 59)

			Agencies of Constraint				
Category	N		Medical Admin.	Hospital Board	Health Dept	Time and Self	Other Agencies
Chief	17	No.	1	5	5	4	2
		%	6	29	29	23	12
Principal	33	No.	4	9	10	3	7
		%	12	27	30	9	21
Supervising Principal	9	No.	1	6	1	1	
		%	11	67	11	11	
Total Group	59	No.	6	20	16	8	9
		%	10	34	27	14	15

NOTE: Agencies of constraint were able to be categorised by the researcher into four plus Other as a category as depicted in Table 7.14 above. All of the sub groups identified Hospital Board as the main agency of constraint (total responses 34%). The Chief and Principal Nurses identified the Health Department as being a similar agency of constraint, i.e. 29% and 30% respectively for these sub groups (total responses 27%). Time and Self is seen as an agency imposing constraint (14% of the total responses) as well as an actual constraint - see Table 7.13.

SPECIFIC INDICATOR TESTSINPUT ASPECTS OF HEALTH ECONOMICS AND THEIR EFFECT  
ON RESPONDENTS' DECISION MAKING PROCESSES

The Input Economic Aspects of Health Services were stated as being:

1. Finance
2. (a) Manpower and its (b) Education
3. Environmental Resources
4. Consumer Demand and Need
5. Demographic factors such as Population
6. Health Indicators (mortality and morbidity rates)
7. Trends, e.g. increasing age of the population, decrease of chronically disabling infectious diseases.

The respondents were then asked "To what extent do you think each of these aspects affects your decision making process?". They were given a choice of indicating: "Not at all", "Minimal", "Some", "Considerable", or "Very Considerable".



TABLE 7.15: FREQUENCY DISTRIBUTION OF FINANCE AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Finance as an Input Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No.			1	4	2
		%			4	57	28
Principal	16	No.			2	8	6
		%			12	50	37
Supervising Principal	5	No.			1	1	3
		%			20	20	60
Total Group	28	No.			4	13	11
		%			14	46	39

TABLE 7.16: FREQUENCY DISTRIBUTION OF MANPOWER RESOURCES AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Manpower Resources as Input Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No.			1	6	
		%			14	86	
Principal	16	No.			5	6	5
		%			31	37	31
Supervising Principal	5	No.		1	1	1	2
		%		20	20	20	40
Total Group	28	No.		1	7	13	7
		%		3	25	46	25

TABLE 7.17: FREQUENCY DISTRIBUTION OF MANPOWER EDUCATION AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Manpower Education as Input Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No.		2	2	2	1
		%		28	28	28	14
Principal	16	No.	1	2	6	4	3
		%	6	12	37	25	19
Supervising Principal	5	No.		2	2	1	
		%		40	40	20	
Group Total	28	No.	1	6	10	7	4
		%	4	21	36	25	14

TABLE 7.18: FREQUENCY DISTRIBUTION OF ENVIRONMENTAL RESOURCES AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESS (N = 28)

			Degree of Effect of Environmental Resources as Input Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No.		3	3		1
		%		43	43		14
Principal	16	No.		6	8	1	1
		%		37	50	6	6
Supervising Principal	5	No.			5		
		%			100		
Total Group	28	No.		9	16	1	2
		%		32	57	4	7

TABLE 7.19: FREQUENCY DISTRIBUTION OF CONSUMER DEMAND AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Environmental Resources as Input Aspect				
Category	N		Not at All	Minimal	Some	Consider- able	Very Considerable
Chief	7	No. %			5 71	2 29	
Principal	16	No. %		2 12	10 63	2 12	2 12
Supervising Principal	5	No. %			3 60	1 20	1 20
Total Group	28	No. %		2 7	18 64	5 18	3 11

TABLE 7.20: FREQUENCY DISTRIBUTION OF CONSUMER NEED AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Consumer Need as Input Aspect				
Category	N		Not at All	Minimal	Some	Consider- able	Very Considerable
Chief	7	No. %			5 71	2 29	
Principal	16	No. %		3 19	8 50	2 12	3 19
Supervising Principal	5	No. %		1 20	2 40	2 40	
Total Group	28	No. %		4 14	15 54	6 21	3 11

TABLE 7.21: FREQUENCY DISTRIBUTION OF DEMOGRAPHIC FACTORS AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Demographic Factors as Input Aspect				
Category	N		Not at All	Minimal	Some	Consider- able	Very Considerable
Chief	7	No.		3	2	2	
		%		42	29	29	
Principal	16	No.	1	4	7	1	3
		%	6	25	44	6	19
Supervising Principal	5	No.			2	3	
		%			40	60	
Total Group	28	No.	1	7	11	6	3
		%	4	25	39	21	11

TABLE 7.22: FREQUENCY DISTRIBUTION OF HEALTH INDICATORS AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Health Indicators as Input Aspect				
Category	N		Not at All	Minimal	Some	Consider- able	Very Considerable
Chief	7	No.		1	6		
		%		14	86		
Principal	16	No.		4	8	2	2
		%		25	50	12	12
Supervising Principal	5	No.	1	1	2	1	
		%	20	20	40	20	
Total Group	28	No.	1	6	16	3	2
		%	4	21	57	11	7

TABLE 7.23: FREQUENCY DISTRIBUTION OF TRENDS AS INPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Trends as Input Aspect				
Category	N		Not at All	Minimal	Some	Consider- able	Very Considerable
Chief	7	No. %		7 100			
Principal	16	No. %		2 12	8 50	3 19	3 19
Supervising Principal	5	No. %			3 60	2 40	
Total Group	28	No. %		9 32	11 39	5 18	3 11

NOTE: Comparison of Tables 7.15 to 7.23 show clearly that the categories Finance and Manpower Resources differ markedly from the other categories in their "considerable" and "very considerable" effect strengths.

OUTPUT ASPECTS OF HEALTH ECONOMICS AND THEIR EFFECT ON  
RESPONDENTS' DECISION MAKING PROCESSES

The Output Economic Aspects of Health Services were stated as being:

1. Evaluation of the quality of care
2. Efficiency and effectiveness of the services
3. Costs of medical care
4. Health status of the population, i.e. the production of health.

The respondents were then asked "To what extent do you think each of these aspects affect your decision making process?". They were given a choice of indicating "Not at all", "Minimal", "Some", "Considerable", "Very Considerable".

TABLE 7.24: FREQUENCY DISTRIBUTION OF EVALUATION OF QUALITY OF CARE AS OUTPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

			Degree of Effect of Evaluation of Quality of Care as Output Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No. %			2 28	3 43	2 28
Principal	16	No. %		1 6	2 12	8 50	5 31
Supervising Principal	5	No. %			2 40	3 60	
Total Group	28	No. %		1 4	6 21	14 50	7 25

TABLE 7.25: FREQUENCY DISTRIBUTION OF COST OF MEDICAL CARE AS OUTPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 26)

			Degree of Effect of Cost of Medical Care as Output Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No.	1		1	3	2
		%	14		14	43	28
Principal	14	No.			5	7	2
		%			36	50	14
Supervising Principal	5	No.		1	1	2	1
		%		20	20	40	20
Total Group	26	No.	1	1	7	12	5
		%	4	4	27	46	19

TABLE 7.26: FREQUENCY DISTRIBUTION OF EFFICIENCY OF SERVICES AS OUTPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 27)

			Degree of Effect of Efficiency of Services as Output Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No.			3	2	2
		%			43	28	28
Principal	15	No.			5	8	2
		%			33	53	13
Supervising Principal	5	No.			1	4	
		%			20	80	
Total Group	27	No.			9	14	4
		%			33	52	15

TABLE 7.27: FREQUENCY DISTRIBUTION OF EFFECTIVENESS OF SERVICES AS OUTPUT ASPECT AFFECTING RESPONDENTS' DECISION MAKING PROCESSES (N = 27)

			Degree of Effect of Effectiveness of Services as Output Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No.			2	3	2
		%			28	43	28
Principal	15	No.			4	7	4
		%			27	46	27
Supervising Principal	5	No.				5	
		%				100	
Total Group	27	No.			6	15	6
		%			22	55	22



TABLE 7.28: FREQUENCY DISTRIBUTION OF HEALTH STATUS OF THE POPULATION AS OUTPUT ASPECT OF RESPONDENTS' DECISION MAKING PROCESSES (N = 27)

			Degree of Effect of Health Status as Output Aspect				
Category	N		Not at All	Minimal	Some	Considerable	Very Considerable
Chief	7	No.	1	1	4	1	
		%	14	14	57	14	
Principal	15	No.		2	8	4	1
		%		13	53	27	7
Supervising Principal	5	No.		1	3	1	
		%		20	60	20	
Total Group	27	No.	1	4	15	6	1
		%	4	15	55	22	4

NOTE:

In the section on Output Aspects, all of the respondents did not reply to all categories. In the strengths "considerable" and "very considerable" the following were the patterns of Input and Output Economic Aspects of Health Services being used as indicators of effects of environmental information on respondents in their decision making.

TABLE 7.29: COMPARISON OF FREQUENCY DISTRIBUTIONS OF "CONSIDERABLE" AND "VERY CONSIDERABLE" EFFECTS OF INPUT ECONOMIC ASPECTS INDICATORS ON RESPONDENTS' DECISION MAKING PROCESSES (N = 28)

Category	Considerable % (a)	Very Considerable % (b)	Total % (a) + % (b)
Finance	46	40	86
Manpower	46	25	71
Manpower Education	25	14	39
Environmental Resources	4	7	11
Consumer Demand	18	11	39
Consumer Need	21	11	32
Demographic Factors	21	11	32
Health Indicators	11	7	18
Trends	18	11	29

NOTE: Finance (86%) and Manpower (71%) far outweigh other input aspects in their effect on respondents' decision making processes. Environmental Resources (11%) has the least effect. In the "Very Considerable" category Finance is the input aspect that has the greatest effect (40%) followed by Manpower (25%). When respondents elaborated on those aspects designed as "Considerable" and "Very Considerable", a lot of comment was made about cost containment and scarcity of financial and manpower resources having major effects when they were considering decisions on policy and planning issues.

TABLE 7.30: COMPARISON OF FREQUENCY DISTRIBUTIONS OF "CONSIDERABLE" AND "VERY CONSIDERABLE" EFFECTS OF OUTPUT ECONOMIC ASPECTS INDICATORS ON RESPONDENTS' DECISION MAKING PROCESSES

Category	Considerable % (a)	Very Considerable % (b)	Total % (a) + % (b)
Evaluation of Quality of Care (N = 28)	50	25	70
Cost of Medical Care (N = 26)	46	19	65
Efficiency of Services (N = 27)	52	15	67
Effectiveness of Services (N = 27)	22	4	26

NOTE: There is little variation in the responses to "Considerable" and "Very Considerable" when considering Output Aspects and their effect on respondents' decision making processes, except for Health Status of the population. When respondents elaborated on those aspects designated as "Considerable" and "Very Considerable" most of the comments centred around the fact that most of the output aspects were interrelated with each other and were directly influenced by the input aspects of finance and manpower resources.

## CRITIQUE OF DATA COLLECTION

Purpose of Data Collection

Within a systems framework there is a dynamic interaction between the environment and the decision maker that affects how the decision maker operationalises the decision making process. Therefore, in order to obtain some basic understanding of how/what environmental influences are considered as important by the decision maker and does the decision maker have any logical way of assembling this information for decision making, this data collection approach has been taken.

Size of Sample

With only 29 respondents out of a total population of 46, i.e. 63%, responding to the questionnaire, this limits the type of analysis that can be done. A variation of one respondent alters the results by 3%. Therefore, inferences can only be made by inspection of patterns produced from the analysis of results or by taking the whole sample and using per cent comparison of results. The smallness of sample negates the possibility of undertaking a statistical analysis of results. It is important to keep the results from the three sub-groups as separate, in order to ascertain any variation in patterning of responses from the three sub-groups. For instance, when the respondents are being asked to nominate the person or group that they are directly responsible to for their decision making, it is important to know what other organisational members are buffers between them and the external environment. It can be assumed that a Chief Nurse who is directly responsible to a Hospital Board is much closer to the impact of environmental influences than a Principal Nurse who is responsible to his Medical Superintendent-in-Chief, who in turn is responsible to the Hospital Board.

It is of interest in this study to see how attractive tertiary degree education has been to these senior nurse administrators.

Chief and Supervising Principal Nurses have availed themselves of tertiary degree education to a greater extent than Principal Nurses in the ratio of 17:3 of the total sample. With the actual numbers of respondents being so small and not inclusive of the other 17 who did return the questionnaire, no conclusions can be drawn from the responses to this question. Another example of the smallness of size being a disadvantage in guaranteeing quality of results.

Disadvantages of not being able to do a pilot study or face-to-face interviewing

Both of these factors were influenced by the previous factor, i.e. the smallness of size of the sample. To have done a pilot study would have reduced the size even more so that results would have been too disparate for analytical purposes. Although the sample is small, the individuals are widely dispersed geographically, thus making it impossible for them to be personally interviewed by the researcher. Some of the results have clearly shown the disadvantage of not doing a pilot study or face-to-face interviews. For example, in the question where respondents were being asked to identify whether they had a model, framework or process which they generally adopted for decision making, 62% replied that they had. When this 62% were asked to elaborate as to its format, they used terminology such as problem solving, communication, group discussion, planning and nursing process. Responses to this question were disappointing and really inconclusive. This is one of the questions that clearly demonstrated the disadvantage of not using a pilot study, which would have probably shown the same inconclusive results. Therefore, the question could have been phrased differently for the main study. However, if, in fact, the respondents were really not using a model, framework or process, and were unable to clearly identify this, as did the 37% replying "no" or "don't know", then maybe one would only get valid results for this question by using face-to-face interviews.

Similarly, interviewing would have improved the quality of results for the question about whether the respondents had

any formal planning group(s) in their organisation. This question would have been useful as a means of elucidating whether the respondent had any planning groups that they could utilise as a resource or that would facilitate their decision making activities. However, these criteria were not spelled out in the question. Information from this question was only useful in ascertaining what planning groups were in the respondents' decision making internal organisational environment. From the elaboration of the answers, one can make inferences that the respondents were members of some of these groups which would give an indication of what other group members may be buffering agents between the decision maker and the external environment. Respondents were able to state what these formal planning groups were, but did not clearly identify what form they took. This question would have benefited from a pilot study and/or interviewing.

#### RELIABILITY AND VALIDITY OF DATA

This factor is linked to the previous factors. For the data to be reliable and valid the researcher needs to know that all the subjects understood the meaning of the questions in the same way and gave answers that have similarity of meaning with those from other respondents. A pilot study and/or face-to-face interviews would have ensured this. The following is an example of a question and results where these factors were definitely noted.

As pointed out in the research design, the assumption was made that respondents would have had sufficient exposure to these economic aspects of health services' terms. Therefore, to have them more elaborately defined would not be necessary. However, this assumption could only have been validated if a pilot study had been done. Environmental resources would be seen as the term that would be most open for variance in meaning. Interestingly enough, only one of the respondents answering the questionnaire commented on the difficulty in understanding the meaning of this question, and the next, and so did not answer. Maybe others having difficulty in

understanding the questions were in the group of respondents not answering the questionnaire.

#### SUMMARY

Data results are disappointingly inconclusive and only give patterns of responses from which inferences can be made.

Reasons for this are:

1. There was no pilot study done so it was not known whether the difficulties were with the respondents' interpretation of the questions or with the type of instrument that was used.
2. Because of the geographical location of the respondents, questionnaire was the only feasible instrument to use for this exercise. However, personal interviews using a qualitative process approach may have been superior.
3. Some basic data about this group of decision makers has been collected and this was the main purpose of the exercise. The quality and validity of results as to how these nurse administrators perceive environmental influences and input data is inferior.

## CHAPTER EIGHT

## INTERPRETATION OF DATA

Although there are problems with the quality of the data, there is some very interesting material from which inferences can be made in the light of the model (figure 6.1).

## THE DECISION MAKER

Type of Sample

These decision makers are all registered nurses under the Nurses' Act 1977. They have been appointed to these senior positions and salaried according to conditions of employment prescribed by the Department of Health in negotiation with the employee representative organisations. These determinations for conditions of employment of nursing occupational classes are known as DG 21 (nurses working in general and obstetric hospitals and community health services attached to general hospitals) and DG 3001 (nurses working in psychiatric and psychopaedic hospitals). Designation of titles is prescribed according to the definitions in these determinations (refer p.28). Therefore, in question one of the questionnaire the respondents all identified with the titles Chief Nursing Officer, Supervising Principal Nurse or Principal Nurse. No one nominated the category "Other".

In 1981 these titles were changed so that both Chief Nursing Officers and Supervising Principal Nurses are now known as Chief Nurses. There is no change in the title Principal Nurse. As far as nursing is concerned, these titles are all synonymous with the top nursing administration positions within New Zealand public hospital systems of nursing service and education. The subjects have similarity of function, responsibility and span of control in that only nurse administrators responsible for major regional and hospital nursing services, have been asked to participate in the study. Therefore, a homogeneous sample of a specialised group of decision makers has been selected.



Sixty-three per cent of the total available sample answered the questionnaire so information from only 29 individuals is available for analysis. With the sample being broken down into three sub-groups, this causes a further reduction in sample size for analysis. In most instances the total group of 29 is considered, but it is also of interest to examine the breakdown of results for each of the sub-groups.

Longevity of Tenure of Position (refer Table 7.1)

Seventy-nine per cent of these nurses have been appointed to their position from 1970 onwards and so have not had experience as an executive decision maker prior to the transitional era of the 1970's.

However, 21% of these nurses have been in their positions prior to 1970 and so have longevity of experience as a decision maker at this level and may have experienced the effects of change more acutely. This is only a supposition and cannot be tested with this sample and instrument. Another parallel study, using the same instrument but having a sample of senior nurse administrators who were in these positions prior to 1970 and were now retired or in other positions, would be needed. However, the variable, of not being currently in the position of a decision maker, would introduce considerable bias into the results. If variations in results showed up between the two groups of administrators, i.e. present and past, then one would have difficulty in ascertaining whether the cause was due to the impact of change caused by the 1970's or their non-participation in that decade. Therefore, results in this table are useful in identifying these subjects for purposes of comparison with the nurse administrators described in Tables 3.1 and 3.2. This research instrument is not appropriate for use in sophisticated comparison studies of nurse administrators' responsibilities over the decades.

## Educational Backgrounds - Tertiary Qualifications

(refer Table 7.2)

### Diploma of Advanced Nursing Studies -

Ninety-seven per cent of the total sample hold this qualification. One Chief Nurse, or 3%, does not hold this qualification but has a baccalaureate degree. Sixty-five per cent of the rest of the respondents have an SANS Diploma plus a completed or partial degree or diploma.

### Diploma of Nursing Studies -

No one in the sample holds this qualification.

Until recent years, it was mandatory for all Senior Nurse Administrators to hold a Diploma in Advanced Nursing Studies. Advertisements for these positions now state that the applicant must hold a Diploma of Nursing and/or an equivalent or higher qualification. The School of Advanced Nursing Studies has been closed since 1979, so this has implications for the future qualifications of Senior Nurse Administrators. Advanced Post-Basic Diplomas in Nursing and Baccalaureate and Master Degrees as well as the Diploma of Health Administration, all available through tertiary educational institutions, will be the paths of continuing education for future Nurse Administrators.

Chief and Supervising Principal Nurses have availed themselves of tertiary degree education to a greater extent than Principal Nurses in the ratio of 17:3 of the total sample. With the actual numbers of respondents being so small, and not inclusive of the other 17 who did not return the questionnaire, few conclusions can be drawn from the results of this table. However, there has been some participation in tertiary education by this group which is encouraging and may be indicative of perceived utility of such education for senior administrators. A survey of nurses currently undertaking tertiary degree education to test their reasons for such study may have interesting implications for deducing how subordinates perceive the relativity of specialised

knowledge for administrative decision making. There are no financial rewards in New Zealand for nurses having additional educational qualifications, so these six nurses must have had some special reason for studying for their degrees. This is another question which would have benefited from face-to-face interview being used for purposes of elaboration.

In relation to tertiary education, 21% of the total sample have obtained, or are obtaining, Baccalaureate degrees and 34% of the total sample have obtained, or are obtaining, the Diploma of Health Administration.

#### Professional Qualifications, i.e. Nursing Registration

(refer Table 7.3)

Except in psychiatric and psychopaedic hospitals, it is requisite that nurses applying for senior administrative positions, in nursing service, have registrations in general and obstetric nursing and preferably in midwifery as well. Some of the principal nurses in this study are nurse administrators of psychiatric or psychopaedic hospitals and only have a single registration in their speciality or have a general qualification without obstetrics. The results in Table 7.3 can be interpreted for these variances. With eight of the major hospital boards having responsibility for psychiatric and/or psychopaedic institutions, since 1972, it is interesting to note that none of the chief nurses responding to the questionnaire, are newly titled registered comprehensive nurses (under the Nurses' Act 1977, those nurses with general and obstetric registrations and psychiatric and psychopaedic registrations became registered comprehensive nurses). In fact, none of the respondents are registered comprehensive nurses, i.e. they do not have the additional qualification in obstetric, psychiatric or psychopaedic nursing. Therefore, the decade of change in nursing education has not noticeably affected the qualifications perceived as requisite for promotion.

### Length of Nursing Experience (refer Table 7.4)

Fifty-two per cent of the respondents have been nursing for more than 30 years. All of them have been nursing in the post 1940 era with varying perceptions according to their nursing experiences within New Zealand and overseas, of the changes in the health systems environment and organisational structures. The Second World War effects on manpower, the economy, health needs of the population, etc. necessitated many changes in the delivery of patient care and health services (refer Tables 2.2 and 2.3).

Length of nursing experience also has significance in the light of the effects of bureaucratic structure on the personality of those individuals responsible for making decisions or aspiring to be in positions of responsibility and authority for decision making (refer p.40).

### GROUP MEMBERSHIP AND ORGANISATIONAL INFLUENCES

This thesis is looking at base line data from which generalisations can be made. Specific questions about group membership of these senior nurse administrators were not asked because there would be so many institutional variables relative to each individual's situation. Group member participation would also vary between the three sub-groups because of their different organisational contexts, e.g. a Chief Nurse has regional responsibility and is not based in an institution and so is not surrounded by other nursing groups as are Principal Nurses and Supervising Principal Nurses. This thesis is also focussed on Category II policy decisions so it was considered relevant by the researcher to basically ask for information about any formal planning groups that were in the respondents' organisations and for a description of their form.

Formal Planning Groups (refer Tables 7.11 and 7.12)

Ninety-seven per cent of respondents identified formal planning groups that were categorised as follows - Nursing Administration and Service; Coordinating Committee; Board Planning and Advisory Executive Committees; Nursing Education; Budget Committee; Institutional Planning. Some of the respondents identified more than one category so that overall there were 64 responses. Nursing groups, e.g. administration, service and education, accounted for 42% of nominated responses. As regards other groups involving possible interaction with other disciplines or administrators, these accounted for 58% of responses. Of particular interest is the fact that only 9% of responses were for budget committee groups and only 11% of responses were for executive committees - could be indicative of the fact that many senior nurse administrators do not see it as important to mention groups where they could possibly interact with their counterpart medical or executive administrators.

However, this question was not explicit in asking the respondents as to which of the groups identified they had participative membership in or were viewed as support groups - pilot study would have enhanced this.

Group/Individual Accountable for Senior Nurse Administrators' Decision Making (refer Table 7.6)

Results in this table show interesting examples of individuals and groups that may surround or support the senior nurse administrator in her/his decision making activities. Fifty-eight per cent of subjects state that they are directly responsible to a medical administrator for their decisions. This demonstrates considerable subscription of some hospital administrative structures in New Zealand, to medical dominance and authority (refer pp.35-37 ). Only 17% state that they are jointly responsible with their administrator and medical counterparts, for decision making. This demonstrates a small percentage of hospital and regional administrative structures that have responded to changing environments by

implementing alternative decision making structures associated with complexity of environments (refer pp.10,51). According to the Harrison Model (refer Figure 5.1), these groups or individuals may act as buffering agents to external environmental influences and information. Therefore, those nurse administrators who are responsible to medical administrators, who are in turn responsible to other medical administrators, who in turn are responsible to their hospital boards, will be less exposed to external environmental effects than other senior nurse administrators. In these cases, the changes of the 1970's may not have been felt so acutely by these nurses who are well protected within their bureaucracies. (Refer p.63.)

### The Organisation

The public hospital system in New Zealand is comprised of non-for-profit organisations directly responsible through regional elected hospital boards, to the Health Department. The background and evolution of these organisations and their senior nurse administrator positions, has been clearly described in Chapter Three. As this thesis is concerned with commonalities, it was considered that the nationalisation of the New Zealand public hospital system precluded any marked variations between hospitals or between boards. Issues relating to organisation of executive management teams has already been described above, therefore, there are no specific questions in the questionnaire relating to this aspect of Harrison's model (Figure 5.1). This is not to say that the organisation has been de-emphasised as a buffering agent. Surrounding the decision maker is her/his group membership which also interacts (refer Figure 6.1) with organisational influences.

### Organisational Influences

Later in this chapter (pp.117-118) environmental constraints and forces will be discussed in the light of data obtained. With the mutual interaction of the organisation with the environment organisational constraints may have their genesis

in the organisational structure itself, e.g. agencies of constraint, such as medical administration (refer Table 7.14), or in the external environment, e.g. Health Department.

The importance of the organisation and its mutual interaction with the environment is of key importance to the understanding of this whole study. Hence the reason for much elaboration on the role of the organisation, decision maker and environment in Chapters Three, Four and Five.

## ENVIRONMENTAL INFLUENCES

### System Inputs

Of critical importance to the decision maker is information input, particularly when making non-routine, unprogrammed, Category II, policy decisions. The right information, from the right source at the right time, would seem to be the essence of decision making activity in these circumstances. Both the Harrison and the Arndt and Huckabay models (refer Chapter Five) would support this. Energy and materials input are also important, but will be less likely to vary under the influence of the decision maker in the public hospitals' system which is under external national control. Therefore, it is important in this study to see what information, its form and source, is considered as important by these senior nurse administrators at the outset of their decision making activities.

### Sources of Information for Making Policy Decisions

(refer Table 7.7)

The results in this table are interesting from the point of view of the information source categories that the respondents identified as affecting their policy decision making. There is a wide range of statutory bodies, groups and media mentioned. This may be an indication of the free or open thinking attitude

of the senior nurse administrators or may be a reflection of where the most pressure comes from and to whom they are accountable legally and sociologically for their policy decisions. As mentioned in Chapter Seven, the respondents most commonly identified Department of Health and Nursing Council (17%) almost as frequently as they did their own nursing staff (19%), thus signifying that they gave relatively equal mention to the external source as they did to the internal source. Once again, this may be an indication of equity in their thinking and attitudes or a reflection of where the most pressure comes from and to whom they are accountable. The next most frequently mentioned information source is their Hospital Board and its Departments with an overall 11% response. This is to be expected as senior nurse administrators have vested authority and expectations from their Board to implement its policy as applied to nursing. In cases where the senior nurse administrator is part of a triumvirate decision making team, he/she also has responsibility for jointly implementing Board policy as it relates to the institution(s).

Another factor accounting for categories such as own nursing staff, Department of Health and Nursing Council, being the predominantly nominated categories, is that these are all traditional sources of information, that is, they are bodies to whom the nurse administrator has always been accountable for nursing matters. However, as pointed out by Claus and Bailey in Chapter Five, claimant groups and resources need to be specified at the outset of decision making as both these categories may be affected by the outcome of the decision or in turn affect the decision at the outset. (Refer pp.56, 58 .)

Information sought for another purpose may be relevant here. An endeavour to elicit from the respondents as to what other group membership or support groups these respondents had in their decision making activities (refer Table 7.11), failed to give this information. The reason for this may be attributed to the lack of clarity of information being sought. However, the typology of categories selected from the responses, by the



researcher, are indicative of a wide range of groups in which the respondents probably have participative membership and are also used as informational sources. (Refer Table 7.12.)

#### The Form in which Information is Received

(refer Table 7.8)

Categories used in this close ended question were nominated from experiential information, i.e. subjective, and asking administrators at random how they got their information for decision making. Three 'written' categories were nominated and two 'verbal' categories were nominated, plus 'other' as a category for the respondent to nominate and describe, such as, form of information that they considered as important. Only 10% of all the respondents nominated 'other' as a category. Therefore, it can be assumed that the other five nominated categories were considered by the respondents as relevant to this question. The results for these five categories show little significant variation, i.e. 16% to 19%. This would indicate a similar ranking of all categories by the respondents.

The assumption could be made that factual data was of equal importance when compared with interpersonal interactive sharing of information. This was indicative of environmental information influences and the possibility of mutual interaction between the decision maker and the environment.

(Refer pp.63-64 .)

As with the results from the previous question, this is another indicator of resources that was given consideration by these nurse administrators at the outset of their decision making.

#### Model, Process, Framework for Organising Material for Decision Making (refer Tables 7.9 and 7.10)

Having asked the respondents what resources and forms of information they considered at the outset of their decision making activities, it was then important to investigate whether these nurses had any formalised way of assembling this information.

As pointed out by La Patra (1975), when undertaking a systems analysis, modelling becomes a generic term that is used in place of the phrase "The Systems Approach" (refer p.61). Whether these nurse administrators used models was important to investigate. In this question, models were coupled with processes and frameworks. Only 63% of the respondents replied that they had a model, framework, process which they generally adopted for decision making. When asked to elaborate on format, categories that could be identified were "Group Discussion", "Problem Solving", "Communication", or "Nursing Process". Results were disappointingly inconclusive of evidence of actual format used.

Types of Environmental Constraints/Forces (refer Table 7.13)

Results in this table demonstrate the types of organisational constraint identified as affecting respondents' decision making processes. Not only could these aspects be considered as constraints, but, according to Claus and Bailey (1975), if viewed from the opposite perspective, they may also be considered as capabilities depending on whether they were of negative or positive strength. In the Harrison model (refer p.55) they may also be allied with his environmental forces concepts.

Likewise in the La Patra model (refer P.62) they may also be allied with the environmental interaction analogy. According to Arndt and Huckabay (1975), they very closely compare with their conceptualisation of environmental constraints. The largest proportion of responses (25%) identified financial resources as organisational constraints, followed by manpower resources (18%). This was not surprising as nurse administrators have traditionally been concerned with finances and manpower allocated to nursing (refer pp.29-30,42). An extension of this question to interpret the strength of these constraints, and an indication of whether the strengths had altered in a negative or positive way over the last decade would have given more qualified responses for interpretation.

Responses to this question identify organisational constraints very similar to those listed by Bailey and Claus (1975), namely, time, financial support, manpower, interaction and assistance within the organisation. Bailey and Claus' other categories of equipment and facilities, outside assistance and the environment, were not specified by the respondents. However, size of the organisation and organisational structure, regulations and policies and professional ethics, are similar in connotation. Coordination of information is likened to the category of assistance within the organisation. It can be seen that this group of respondents regarded financial (25%) and manpower resources (18%), regulations and policies (16%), and coordination of information (14%), as major constraints in comparison to the other categories which ranged from 4% to 9%.

#### Agencies of Constraint Affecting Decision Maker

(refer Table 7.14)

The Hospital Board (34%) and the Health Department (27%) were seen as major agencies of constraint. The category "medical administration" as an agency of constraint (10%) may be of significance if coupled with the results in Table 7.6 (59% responsible to medical administrator for decisions), "Time and Self" (14%) and "Other" agencies (15%), together accounted for 29% of other constraining bodies. It is interesting to note that in Tables 7.13 and 7.14 "Time" was identified as both an organisational constraint and an agency imposing constraint. It is felt that respondents identified strongly with this question and were able to respond more definitively as a consequence.

#### SPECIAL INDICATOR TESTS OF SUPRASYSTEMIC FORCES OF SOCIAL, ECONOMIC, POLITICAL AND TECHNOLOGICAL SYSTEMS

In Chapter Five, Harrison, Claus and Bailey, Arndt and Huckabay and La Patra have all drawn attention to impact changes these systems can have on the organisational system and its decision makers.

Culyer and Wright's categorisation of input and output economic aspects of health services have been used as indicators for this research study.

### Input Aspects of Economic Aspects of Health Services

(refer Tables 7.15 to 7.23)

Here again, respondents replied that finance (85%) and manpower (71%) were major input aspects affecting their decision making processes, i.e. taking aggregate totals of "considerable" and "very considerable" checked responses. Taking aggregate total of "some", "considerable" and "very considerable", there was no input aspect category that fell below 68% of total responses. The two categories with 68% were Trends and Environmental Resources.

Although respondents were not asked to rank order these categories, the patterning of responses and total responses in rank ordered categories from "not at all" to "very considerable" were results consistent with subjective perceptions. It was also interesting to note that manpower, education, environmental resources, demographic factors, health indicators and trends were in the range of 25% to 32% of total responses in the aggregate of "not at all" or "minimum" effects on respondents' decision making processes; whereas manpower has only 3% responses for these two categories and finance has nil responses. Finance and manpower have always been high priorities for nurse administrators to consider when involved in decision making about major issues such as policies (refer pp.42-43 ). Therefore, it was not surprising in this era of cost containment and attention to staffing mixes that needed to be planned for in the phasing out of student nurse manpower that finance and manpower still had considerable or very considerable effects on these decision makers. What is significant is that, for some senior nurse administrators, other input economic aspects of health services were also seen to have considerable or very considerable effects on their decision making processes. Of particular note is "consumer demand" which is perceived as having 93% of total responses aggregated between "some", "considerable" and "very considerable".

Respondents were further asked to describe in detail how those aspects of health services that they had designated as "considerable" or "very considerable" affected their decision making processes. The following are some of the comments made as to how finance and manpower were very important influences on their decision making processes.

Many of the groups of senior nurse administrators nominating "considerable" and "very considerable" as being the effects of Finance and Manpower on their decision making, also commented on the link between these two input economic aspects of health services, e.g. one comment by a Principal Nurse was -

inability to employ adequate numbers of suitably qualified staff within the financial constraints and this results in less manpower.

A comment by a Supervising Principal Nurse was -

lack of money affects numbers of staff available, lack of manpower affects the kind of nursing care that can be given - constraints also imposed by the size of hospital in relation to the local population base.

Of course, hand-in-hand with manpower goes finance as you have to have the dollars available to remunerate your employees. Therefore, there should be some positive correlation, as can be seen by inspection, between the results in Tables 7.15 and 7.16, and the variances accounted for by the geographical and individual differences of the Boards by whom the senior administrators are employed.

Not directly addressed in this study is the geographical mobility and availability of nursing manpower in New Zealand. It is known that there are individual variations in the availability of registered general and obstetric nurses, midwives, registered psychiatric and psychopaedic nurses, enrolled nurses and male and female qualified nurses. As

pointed out by Yett (1970), it is important to assess the geographical mobility of nurses within the region and also nationally, data should be viewed as weighted averages of behaviour in local markets as this is more significant than considering the market in national terms and that for prediction of nursing manpower needs, one must have a baseline. Taking these factors into consideration, there is still a lot of time and work to be spent by senior nurse administrators and back up resource services on nursing manpower needs, locally and nationally.

Assessment also needs to be done of the local and national pools of available nurses to supply manpower needs of the future. Some work towards this has been done recently by the Management Services and Research Unit of the New Zealand Department of Health and published as an occasional paper Number 10, "Nursing Staff employed by Hospital Boards in New Zealand 1977 and 1979 compared". (1980.)

It is important to note here how the respondents viewed the issue of Education of Nursing Manpower as an input economic aspect of health services - Table 7.17.

There is a wider variation in the choices of "not at all", "minimal", "some", "considerable" and "very considerable", as nominated by the respondents for this economic aspect. Of the total responses, 35% nominated "some", 25% nominated "considerable" and 21% nominated "minimal", and only 14% nominated "very considerable". Here again, the variations could be accounted for on a geographical basis and to what extent the senior nurse administrators have direct responsibility for nursing education in their institutions, although these factors were not tested in this study. In some Boards, nursing education staff have direct line responsibility through their Principal Tutor to the Chief Nurse or Supervising Principal Nurse, which could account for some of the patterning of responses in this Table. Also, some of the respondents are not directly involved in the oversight of nursing education because they do not have schools of nursing in their institutions. Principal Nurses

are in the main more concerned with the service aspect of the student nurse workforce. With the transfer of nursing education out of hospitals to tertiary education institutions, senior nurse administrators are very involved in the implications of this national policy and how it is applied to their own institutions specifically. Therefore, indirectly nursing manpower education impinges on nursing services policy making in the short and long term.

Bailey and Claus (1975), in alerting nurses to specify constraints, capabilities and resources, as environmental variables at the outset of their problem solving, also emphasise the role of claimant groups and their need for consideration at this stage.

In this case we have the employee representative organisation, New Zealand Nurses' Association, putting the pressure on to have the apprentice-type system of nursing education discontinued in favour of comprehensive education and training in a student based system. This is also government policy now as is the policy for post-basic nursing education. Therefore, senior nurse administrators are getting a monitoring pressure applied to them from both employee organisations and the Department of Health to comply with the expectations involved in the transition phase.

There was a further question that was open ended in which the respondents were asked, "Taking Manpower and its Education, please identify and describe the main issues that you are involved with in formulating a manpower policy for your organisation/institution/institutions. Where possible, please include any decision making model or frameworks or processes that you have found appropriate in your planning and policy making for these manpower issues". Ninety-three per cent answered this question in varying amounts of detail and often in a non-specific generalised manner. It was, therefore, difficult to analyse this question. Of those answers that contained specifics, 68% of the responses were related to manpower, i.e. nursing establishment and ceiling numbers of

actual staff they were allowed to employ within their budgets and 32% were comments related to education and of these 20% were related to the effects of transfer of nursing education. These results therefore, show positive correlation with results in Tables 7.15 to 7.17 in that finance and manpower are very closely tied and that education of nursing manpower is of less importance. Only 23% of the respondents answering this question actually stated a stepwise process that they used when considering manpower issues, but there was little to be deduced except that they followed a problem solving format which could have a positive correlation with the results in Table 7.10 - Type of model framework, process used by respondents for decision making.

The input aspect of Environmental Resources is a broad term that could be open to a variety of interpretations and connotations, but also may be an aspect that senior nurse administrators view as considerably lower in priority than any of the other economic aspects of health services.

There is a variable pattern of responses demonstrated in Table 7.18, but the majority of responses (57%) are for the category "some". Only 4% chose "considerable" and 7% chose "very considerable". Once again, geographical and individual differences probably account for this. However, environmental resources is an aspect that senior nurse administrators can be assumed to have little direct responsibility for evaluation and maybe rely on social demographers within their Boards' resources to advise them and direct their attention to the important areas for consideration during decision making on policy matters. It is an assumption that this is an economic aspect of health services that will assume more importance in the future. As pointed out by Ruchlin and Rogers (1973) -

scarcity of resources relative to wants and needs is the economic fact of life. Unless this is realised, preoccupation with quality can only result in a rationing of quantity. (p.8)



It is now important to consider how the respondents viewed Consumer Demand and Need as input economic aspects of health services. (Refer Tables 7.19 and 7.20.) The respondents in the main chose "some" as the degree of effect these aspects had on their decision making processes - 64% nominated "some" for Consumer Demand and 54% nominated "some" for Consumer Need. "Considerable" was nominated by 18% of respondents for Consumer Demand and by 21% of respondents for Consumer Need. "Very considerable" was nominated by 11% for both Consumer Demand and Need, and this was contributed to by only the Principal and Supervising Principal Nurses. This could be accounted for by the fact that these two groups of nurses are nearer to the consumer in their work situation than are the Chief Nurses. With the de-emphasis of care from institution to the community, one can anticipate that consumer demand and need will assume increasing importance in the decision making processes of the senior nurse administrators of the future. Consumer pressure groups are becoming more evident in an effort to gain more information about the services, how to apply for them and acquire skill in making clients' wishes known. Also, patients codes of rights and responsibilities are becoming accepted nationally as a means of protecting patients' needs and keeping their demands within national bounds. Also, as pointed out by Williams (1978), one needs to be aware of and have the ability of assessing relative needs in order to be able to assess priorities. The setting of priorities can and should be a very important part of the senior nurse administrators' decision making process.

#### Demographic Factors as an Input Economic Aspect of Health Service (refer Table 7.21)

There is a fair distribution through the categories of choices for this aspect with the majority of total responses being for "some", "minimal" and "considerable". Here again, it is likely that for some geographical areas, this aspect will be more relevant and important than for other areas according to the prevailing policy decisions under consideration. On the basis of this assumption one would expect there to be a positive correlation between Tables 7.18 environmental resources and 7.21 demographic factors, but on inspection this is not strongly evident.

It is unlikely that senior nurse administrators will have direct responsibility for assessing and evaluating demographic data. However, the effect that regional population densities, ages and distributions is having on health care planning and funding is strongly evident at the present time as can be seen in documents published during 1979 and 1980 by the New Zealand Planning Council and the Health Department, the most recent being "The Equitable Distribution of Finance to Hospital Boards". Therefore, demographic factors as an economic aspect of health services is likely to assume much greater importance in the decision making processes of senior nurse administrators.

Health Indicators as an Input Economic Aspect of Health Services (refer Table 7.22)

On inspection, there is a higher positive correlation between the results obtained for health indicators and environmental resources, i.e. Tables 7.22 and 7.18, with 57% of total responses being for "some" as their effect on decision making of respondents, and a relatively even spread on either side as to the degree of effect. This is another aspect that refers to data, e.g. on mortality and morbidity rates, of a specialist and resource nature which has important bearing on decision making, allocation of scarce resources and the setting of priorities, and is liable to assume some importance for senior nurse administrators, especially those involved in decision making at regional level.

Trends as an Input Economic Aspect of Health Services  
(refer Table 7.23)

One hundred per cent of the Chief Nurses saw this aspect as having "minimal" effect on their decision making processes. The spread is from "minimal" to "very considerable" for Principal Nurses and is either "some" or "considerable" for Supervising Principal Nurses. This could be accounted for by the increasing number of elderly patients occupying medical and surgical beds within all institutions and the difficulties of getting suitable accommodation for them to go to once they have recovered from the acute condition which brought them to

hospital. Chief Nurses are further removed from this day-to-day management problem, but they are involved in the overall planning for such changing trends of institutional use as geriatrics, obstetrics, paediatrics, abortion services and supra specialties.

As pointed out by Klarman (1965), trends and health indicators are assuming greater importance as economic aspects of health services with people living longer thus making increased call on resources for the elderly. Also, Cooper's (1975) mention of the bell-shaped distribution for medical services with the young and the old making by far the greatest demands. He sees that with an ageing population, the nation will increasingly be faced with the pyramid problem of degenerative disorders, thus making increasing demands on institutional, rehabilitative, and support medical services and skilled nursing and para-medical staff. Health indicators and trends can therefore be expected to become of increasing importance as economic aspects of health services and so will have "considerable" or "very considerable" effect on the decision making of future senior nurse administrators.

Output Economic Aspects of Health Services were stated as being:

- |    |                                 |   |                     |
|----|---------------------------------|---|---------------------|
| 1. | Evaluation of quality of care;  | ) |                     |
|    |                                 | ) |                     |
| 2. | Cost of medical care;           | ) |                     |
|    |                                 | ) |                     |
| 3. | Efficiency of service;          | ) | refer               |
|    |                                 | ) | Tables 7.24 to 7.28 |
| 4. | Effectiveness of services;      | ) |                     |
|    |                                 | ) |                     |
| 5. | Health status of the population | ) |                     |

Taking the responses "some" and "considerable" as total responses (refer Table 7.30), it can be seen that there is a high degree of positive correlation between how senior nurse administrators see each of the five output economic aspects of health services affecting their decision making processes.

Respondents were further asked to describe how these output aspects that they designated as "considerable" or "very considerable", affected their decision making processes.

Of the Chief and Principal Nurse groups, 22% did not answer this part of the question. Of the remainder who did answer the question, 61% clearly stated that all output aspects designated by them as "considerable" or "very considerable" were very much controlled and influenced by financial restraints. All the Supervising Principal Nurses answered this part of the question, but did not specifically mention "financial control" as a factor. However, one Supervising Principal Nurse stated "Cost of medical care is always paramount but frequently decisions are outside my control". Another stated, "As there is only a certain amount of money, it has to be used to the best advantage, therefore, costs and effectiveness have to be considered".

The theme of Finance and Manpower as being prime factors affecting all aspects of the senior nurse administrators' decision making processes is very evident when considering the results of the input and output economic aspects of health services in this study. This is substantiated when comparing the results in Tables 7.15 Finance, 7.16 Manpower, 7.24 Evaluation of Quality of Care, 7.25 Cost of Medical Care, 7.26 Efficiency of Services, and 7.27 Effectiveness of Services. There are also similarities in the comparison of results for Consumer Demand, Table 7.19, and Consumer Need, Table 7.20, with the abovementioned tables. This is to be expected as Consumer Demand and Need are very dependent on available finances and manpower to provide consumer health care. Also, in Table 7.28 - Health Status of the Population - the results for the choice "very considerable" are considerably less than are those in Tables 7.24 Evaluation of Quality of Care; 7.25 Cost of Medical Care; 7.26 Efficiency of Services; 7.27 Effectiveness of Services, in that only 4% of all respondents nominated "very considerable" as their choice for this aspect.

This can be explained by the fact that the aspects arranged in Tables 7.24 to 7.27 are all directly related to institutional factors, whereas Health Status of the Population is an indirect indicator of the overall effect of institutional and community health care and therefore can be expected to have less direct effect on senior nurse administrators' decision making processes.

Overall for the section on output economic aspects of health services, the respondents were really only asked to demonstrate the importance of these aspects on their decision making processes. Qualitative measures such as use of administrative tools, audits, and evaluation processes were not asked for. These measures are worthy of attention in any further study of these aspects. Such indicators as Quality of Patient Care and Health Status of the Individual are difficult evaluative terms to define or have adequate tools for measuring them. Often measures specify inputs rather than output required. The close correlation of some of the results for Input and Output Aspects in this study are likely to be examples of these measures of outcome, although vitally essential for measuring efficiency and effectiveness of health services, they are also often very difficult to measure as in most cases there are not suitable administrative tools to do this.

## CHAPTER NINE

## CONCLUSIONS

Organisational change is generally examined from the perspective of the internal organisation and its actors' adaptive responses to the stress of external environmental change setting up forces that impact on the organisation. This thesis has been focussed on demonstrating how a specialised group of decision makers have responded to change. Three areas of response have been given major attention, i.e. the personal characteristics of these senior nurse administrators, the characteristics of the mutually interacting system of the environment - organisation - decision maker, and the perception of environmental influences as related to these nurses' decision making activities.

Personal Characteristics of Decision Maker

Changes in the nursing education focus both basic and post-basic is not reflected in these nurses' professional qualifications, but 63% of these nurses have or are availing themselves of tertiary university based education programmes specifically related to nursing and health administration.

Length of service may not be the only criterion for promotion to these senior nursing administrator positions as 52% have had less than 30 years service.

It may be assumed that the 79% of nurses who have been appointed to their present position since 1970 will be more responsive to environmental changes and information than those who have already developed ritualistic patterns of decision making prior to the decade of change. Likewise, the 52% of respondents who have been nursing for more than 30 years and so have had long term exposure to working within bureaucracies may also exhibit evidence of 'trained incapacity' (refer pp.39-40 ) for responding to the uncertainty of environmental influences and developing creative strategies.

Environment - Organisation - Decision Maker System

Traditionally, hospitals and nursing services have been described as bureaucratic structures and in the main have been "tall" organisations. The hierarchy of authority of position and authority to make decisions has been centralised and of paramount importance to the survival of the systems and a combatant to changing environmental influences or forces.

The research study has shown that in the nursing service of public hospitals within the New Zealand health care system there are some organisational structural and decision making strategy changes in the 1970's, e.g.

- (a) forty-one per cent of the respondents are no longer responsible to medical administrators for their decision making;
- (b) there is evidence of decision making within the structure of executive management teams - triumvirate, directorate - as mentioned by 17% of the respondents;
- (c) one of the identified methods of receiving information was by the medium of group discussion which was nominated by 19% of the respondents.

Group discussion was also mentioned by 28% of the 62% of respondents acknowledging that they had a model or process for decision making. These two factors may be indicators of these nurses moving towards instituting more decentralised forms of decision making. On page 13 reference was made of organisation structure effects on management systems with illustration of Kaluzny et al's comparison of System 1 or classical organisation with System 4 organisations where decision making changes from being centralised to occurring at all levels through group process.

It is my assumption that the management systems of some New Zealand hospitals are supporting changes in organisational structure from tall to flat organisations, bureaucracies to

matrix organisations, and classical to System 4 organisations where group process and shared decision making is comfortably experienced by the three key administrators - nursing, medical, administrative. If this is so, then these are major organisational changes not hitherto experienced in hospital management in New Zealand prior to 1970.

Although the respondents were not specifically asked as to who or what groups or individuals came between them and the environment, i.e. buffer effects of environmental forces, there is still some interesting data from which inferences can be made, e.g.

Table 7.6 gives a picture of a variety of key personnel or groups that maybe come between the senior nurse administrator and her/his environment - Chief Nurse, Superintendent-in-Chief, Medical Superintendent, Directorate, Hospital Board.

Table 7.12 identifies an array of other nursing and organisational groups that the nurse administrator may participate in and experience group shielding from environmental influences.

Tables 7.13 and 7.14 are concerned with demonstrating constraints experienced by these nurses as administrators making decisions. Not only are groups of people mentioned such as "medical administration" and "hospital board", but also such exigencies as "time" which in itself may be a buffering agency for the length of exposure to environmental influences and ability to make decisions, must have organisational implications.



Perception of Environmental Influences as Experienced by  
the Decision Makers

The decision maker must be subject to a variety of environmental influences or forces that are coloured by her/his own experience and knowledge, geographical location, individual institutional differences and proximity to the boundary of the organisation and the environment. Are Chief Nurses more vulnerable to environmental forces and influences of the changing health care system at large than are Principal Nurses who are protected from regional and major board policy issues?

Are Supervising Principal Nurses in rural geographical locations more isolated from the impact of the environmental influences of a changing health care system than their counterpart nursing colleagues in large urban areas, particularly in Wellington - Nursing Council, Health Department and Government are all located in this city? These are only a few questions that cannot be answered from analysis of responses to this study. The reason for this is that in order to obtain this kind of information, which is very subjective in nature, a much more sophisticated research instrument would need to be used.

However, the use of economic aspects of health services, input and output factors, as indicators of information that is considered as important by these decision makers, has been a simplistic means of ascertaining the rudiments of this kind of subjective material. Also, these indicators have given an impression as to where environmental change factors feature in these nurses' decision making frames of reference. For instance, it is quite obvious from the data comparison in Table 7.29 that Finance (86%) and Manpower (71%) far exceed all other input aspects. As regards output aspects, evaluation of quality of care, cost of medical care, efficiency of services, effectiveness of services, all share relative importance with a 65% - 78% response rate, but health status of population with 26% response rate is contrastingly de-emphasised.

It was the aim of this study to collect base line data. This aim has been achieved as demonstrated in Chapters Seven and Eight.

The results of this research study demonstrate that this group of specialised decision makers are responding to environmental change with some individual geographical and organisational differences being evident.

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## APPENDIX

MONICA J. MOULSON



29 October 1979

Dear Senior Nurse Administrator:

I am a Master's student at Massey University and as part of my thesis I am undertaking a study of decision-making processes used by Senior Nurse Administrators in New Zealand. I am writing to request your assistance in completing and returning a survey form dealing with aspects of your work. The enclosed questionnaire is being mailed to the Senior Nurse Administrators of all hospitals that have over 200 average bed occupancy. I would have preferred to have conducted personal interviews, but time, finance, and my fulltime employment prevent me from this course of action.

I would therefore very much appreciate your giving time and consideration to this questionnaire. Please return it to me within two weeks of receipt.

Your confidentiality and anonymity are assured. If you would like a brief report of my findings in due course, please send me a short letter of request by separate mail. Thank you for your anticipated co-operation.

Yours faithfully

MONICA J. MOULSON R.Comp.N., R.M., B.A.(Soc.Sci.)



QUESTIONNAIRE (No 1) FOR NURSING SERVICE ADMINISTRATORS

This questionnaire relates to the formulation and planning aspects only of your decision-making activities. Please answer the questions concisely and descriptively.

- 1) What nursing administration position do you hold? (Tick one)
- Chief Nursing Officer
- Supervising Principal Nurse
- Principal Nurse
- Other (please specify title: \_\_\_\_\_)
- 2) For how long have you held this position? (Tick one)
- Less than 1 year
- 1 - 5 years
- 6 -10 years
- More than 10 years
- 3) What educational qualifications do you have? (Tick all appropriate boxes)  
Please state year you qualified.
- University degree: M.A. .... B.A. .... B.C.A. .... Other .....
- University diploma: D.H.A. .... Dip.Nsg.Stud. .... S.A.N.S. diploma .....
- Other (state qualification) .....
- 4) What nursing qualifications do you have? (Tick all appropriate boxes)  
Please state year you qualified.
- |                                     |                                   |
|-------------------------------------|-----------------------------------|
| Reg. General Nurse .....            | Reg. Obstetric Nurse .....        |
| (3 or 2 year programme)             |                                   |
| Reg. Psychiatric Nurse .....        | Reg. Psychopaedic Nurse .....     |
| (3 or 2 year programme)             | (3 or 2 year programme)           |
| Reg. Comp. Nurse .....              | Reg. Comp. Nurse .....            |
| (Newly titled e.g. 40 wk programme) | (Technical Institute programme)   |
| Reg. Midwife .....                  | Other (state qualification) ..... |
- 5) How many years have you been nursing? (Tick one)
- |   |  |
|---|--|
| <input type="checkbox"/> Less than 15 years | <input type="checkbox"/> 15 - 20 years |
| <input type="checkbox"/> 21 - 25 years      | <input type="checkbox"/> 26 - 30 years |
| <input type="checkbox"/> 30 - 35 years      | <input type="checkbox"/> 36 - 40 years |
| <input type="checkbox"/> More than 40 years |  |
- 6) How many institutions are under your control? (State number) .....

- 7) To whom are you directly responsible for your decisions? (Tick one)
- ( ) Chief Nursing Officer                      ( ) Hospital Board
- ( ) Medical Superintendent                      ( ) Superintendent in Chief
- ( ) Directorate (or similar decision making body - state composition of personnel of this body) .....
- .....
- .....
- ( ) Other personnel (please identify) .....
- .....
- 8) From what sources does your information come for making policy decisions?
- (a) .....
- (b) .....
- (c) .....
- (d) .....
- (e) .....
- (f) .....
- 9) In what form do you receive your information? (Tick all appropriate boxes)
- ( ) Research exercises                      ( ) Surveys                      ( ) Formal Reports
- ( ) Group discussions                      ( ) Individual discussions
- ( ) Other (Please specify) .....
- .....
- 10) Do you have a model, framework, process which you generally adopt for decision-making? (Tick one)
- ( ) Yes    ( ) No    ( ) Don't know
- If answering yes, please elaborate as to its format: .....
- .....
- .....
- 11) Do you have any formal planning group/s in your organisation? (Tick one)
- ( ) Yes    ( ) No    ( ) Don't know
- If answering yes, please state what they are and the form they take: .....
- .....
- .....

12) What are the organisational constraints that affect your decision-making process?

CONSTRAINT	HOW IT IS AFFECTED	WHO/WHAT IMPOSES CONSTRAINT

13) Input Economic Aspects of Health Services are said to be:

1. Finance
2. (a) Manpower and its (b) Education
3. Environmental resources
4. Consumer demand and need
5. Demographic factors such as population
6. Health indicators (mortality and morbidity rates)
7. Trends, e.g. increasing age of the population, decrease of chronically disabling infectious diseases.

To what extent do you think each of these Aspects affect your decision-making process? (Please indicate in the following table)

ASPECT	NOT AT ALL	MINIMAL	SOME	CONSIDERABLE*	VERY CONSIDERABLE*
Finance					
Manpower					
Manpower (Education)					
Environmental Resources					
Consumer Demand					
Consumer Need					
Demographic Factors e.g. population					
Health Indicators					
Trends					

\* Those designated "considerable" or "very considerable", please describe how:

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b) Cont'd....

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b) Output Economic Aspects of Health Services are said to be:

1. Evaluation of the quality of care
2. Efficiency and effectiveness of the services
3. Costs of medical care
4. Health status of the population, i.e. the production of health

To what extent do you think each of these Aspects affect your decision-making process? (Please indicate in the following table)

ASPECT	NOT AT ALL	MINIMAL	SOME	CONSIDERABLE*	VERY CONSIDERABLE*
Evaluation of quality of care					
Cost of medical care					
Efficiency of services					
Effectiveness of services					
Health status of the population					

\* Those designated "considerable" or "very considerable", please describe how:

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