THE NURSE MANPOWER STUDY

VOLUME I

REPORT OF THE NURSE MANPOWER STUDY ADVISORY COMMITTEE

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THE NURSE MANPOWER STUDY:

VOLUME I

REPORT OF THE NURSE MANPOWER STUDY ADVISORY COMMITTEE

1. INTRODUCTION

The Nurse Manpower Study Advisory Committee originated with the Ministry of Health, more specifically at the request of the then Deputy Minister, Mr. Stan Dubas. The role of the advisory committee was explained to the various participant groups as encompassing the following:

1. To recommend the inclusion of additional members to the advisory committee, on a permanent or ad hoc basis.

2. To participate in the clarification of the issues and questions basic to nurse manpower, including soliciting the views of interested groups or individuals regarding key issues.

3. To assist in identifying appropriate data sources, especially those available through informal sources; and to confirm that a comprehensive set of existing data has been identified.

4. To assist in the assessment of the quality and relevance of the existing data.

5. To critique drafts of the report and assist in reviewing recommendations.

It was anticipated that the study would take between six and nine months to complete (as of March 1987).

Concurrently, staff members in the Division of Policy, Planning and Legislation of the Ministry of Health formulated Terms of Reference for what was envisioned to be the two major study foci:

(i) Data Synthesis
(ii) Workplace Considerations

These, as edited and revised by the Advisory Committee and approved by the Health Manpower Working Group, together with the final Terms of Reference for the Advisory Committee itself, are included here for information as TERMS OF REFERENCE.

Those organizations asked by the Deputy Minister of Health to provide a member for the Nurse Manpower Study Advisory Committee, and their appointees were:

- The British Columbia Health Association: Ms. Lisa Kallstrom, Health Policy Analyst.
The Council of University Teaching Hospitals: Mr. Robert McDermit, Chief Executive Officer, UBC Health Sciences Centre Hospital; from November 1, 1987, Mr. James Flett, President, Vancouver General Hospital.

Ministry of Advanced Education and Job Training: Mr. Gary Bunney, Director, Career and Technical Programs Branch, Colleges and Institutes Division, Ministry of Advanced Education and Job Training.

Ministry of Health - Hospital Programs Division: Ms. Margaret Nugent, Nursing Consultant, Regional Team #5.

Ministry of Health - Policy, Planning and Legislation: Mr. Nick Haazen, Director, Health Economics and Planning Branch.

The Nurse Administrators' Association of British Columbia: Ms. Rose Murakami, Vice-President, Nursing, UBC Health Sciences Centre Hospital.

The Registered Nurses Association of British Columbia: Ms. Claire Kermacks, Manager, Registration and Manpower Department.

At the suggestion of the Hospital Administrators' Council of Greater Vancouver, and with the concurrence of the original committee appointees, a representative of the British Columbia Medical Association, Dr. Mary Donlevy, was added to the committee.

The staff of the project were:

- Ms. Diane Layton, Contract Researcher, Ministry of Health - for the Workplace Considerations portion.

- Ms. Indra Pulcins, and from September 1, 1987, Dr. Arminee Kazanjian, Research Associates, Health Manpower Research Unit - for the Data Synthesis portion.

Throughout, the secretarial and programmer-analyst staff of the Health Manpower Research Unit provided support services.

The committee met nine times:

May 21, 1987: Ratification/Development of Terms of Reference for:

(i) the Advisory Committee
(ii) the Data Synthesis study (Pulcins)
(iii) the Workplace Considerations study (Layton).

The advisory committee wished to add to its own terms of reference the development of a list of issues underlying the nurse manpower situation. The results of this exercise, a list of current and future issues is found in Appendix 4.

June 23, 1987: Further clarification of the role of the committee and delineation of the two specific parts (ii) and (iii) above. Specifically,
following a presentation of several alternate approaches, it was decided to adopt the Institutional Values approach, as presented by Ms. Layton, for the Workplace Considerations portion and a discussion ensured as to a feasible sample of hospitals for this undertaking.

July 27, 1987: This meeting was given over to further development/revision of the list of issues and to a brief introduction to the Data Synthesis portion (Pulcins). As well, it was then decided to notify relevant organizations of the study and to invite from them any relevant materials for the Data Synthesis portion. Organizations included were the Registered Psychiatric Nurses Association, The Licensed Practical Nurses (initially the Council and at a later date, the Association as well); the Health Labour Relations Association, The British Columbia Nurses Union. See Appendix 1 for materials received.

August 31, 1987: At this meeting Dr. M. Donlevy, BCMA, joined the committee. The "Implications of the Future of the Health Care System to Nurse Manpower Planning" received further discussion, and Ms. Layton informed the group of the progress of her Workplace Considerations study.

September 21, 1987: This meeting was devoted to a detailed discussion of the rationale and the existing data for estimating/projecting, the demand for Registered Nurses, now and in the future (Pulcins). Preliminary findings were presented from the Workplace Considerations study (Layton).

October 15, 1987: Further discussion of estimating demand, particularly conversion factors for full-time, part-time and casual workers and their relationship to full-time-equivalents (FTEs), both paid and worked hours (Pulcins/Kazanjian).

October 29, 1987: Presentation of draft report re: Workplace Considerations by Ms. Layton. Ms. Layton will prepare the final report, taking into consideration the Committee’s comments.

November 18, 1987: Presentation of the demand projections and recommendations of the Data Synthesis portion of the study and discussion of same (Pulcins/Kazanjian).

December 4, 1987: Working meeting to finalize the "Report of the Nurse Manpower Study Advisory Committee".

2. TERMS OF REFERENCE

The agreed Terms of Reference were:

(1) Role of the Advisory Committee

1. To define the issues underlying the nurse manpower situation in British Columbia.
2. To participate in the clarification of the issues and questions basic to nurse manpower, including soliciting the views of interested groups or individuals regarding key issues.

3. To assist in identifying appropriate data sources, especially those available through informal sources; and to confirm that a comprehensive set of existing data has been identified.

4. To assist in the assessment of the quality and relevance of the existing data and need for additional information.

5. To critique drafts of the report and to assist in formulating and reviewing recommendations.

6. To report back to the respective organizations represented on the committee and, in turn, to obtain and report input from these organizations.

7. To recommend the inclusion of additional members to the advisory committee, on a permanent or ad hoc basis.

(ii) Data Synthesis

1. To develop a set of questions and issues intrinsic to nurse manpower in British Columbia.

2. To outline the data requirements for the investigation of these issues.

3. To identify and compile currently available data, including those from both formal (i.e. British Columbia Health Association, Registered Nurses' Association of British Columbia, Commission of Employment and Immigration Canada) and informal (i.e. Difficult-to-Fill, RNABC vacancy monitoring, other reports) sources.

4. To assess the quality of the data and determine:

   (a) The technical quality of the data (based on reliability, accuracy, consistency);

   (b) The relevance of the data to the assessment of the nurse manpower situation in British Columbia.

5. To determine the extent of omissions, overlaps and conflicting information in the resulting nurse database.

6. To assess the current status of nurse manpower, as indicated by the synthesis of the currently available data.

7. To suggest other data requirements necessary to provide a comprehensive overview of nurse manpower, if such voids have been identified.
8. To outline a structure for the long term assessment of the nurse manpower situation in British Columbia.

9. To report findings and recommendations to the Health Manpower Working Group of the Ministry of Health.

(iii) Workplace Considerations

1. To conduct a literature search regarding workplace factors and their impact on nurse manpower.

2. To design a questionnaire guideline for interviews with health personnel.

3. To select a sample of hospitals representative of size and regional distribution of the hospital sector in British Columbia.

4. To conduct interviews with a variety of management personnel as well as front-line nurse staff within the selected hospitals.

5. To analyze data obtained from the interviews.

6. To incorporate the findings of the 12 HOUR NURSING SHIFT STUDY into this project.

7. To prepare a report including findings, analysis and recommendations for future action.

3. THE ANALYSIS OF NURSE MANPOWER IN BRITISH COLUMBIA

The reports of the Data Synthesis and the Workplace Considerations studies comprise respectively Volumes II and III of this report. A set of recommendations has emerged from each of the two separate initiatives which comprise The Nurse Manpower Study. These recommendations have been reviewed by the Advisory Committee but do not necessarily reflect the views of the respective organizations. The Executive Summaries of both the Data Synthesis and Workplace Considerations portions, including recommendations, may be found respectively as Appendices 2 and 3 of this volume while the recommendations of the Advisory Committee arising therefrom are found as Section 5 of this report. Brief abstracts of Vols. II and III are offered below.

1. A Synthesis of Nurse Manpower Data in British Columbia (Vol. II)

This report was primarily the work of the Health Manpower Research Unit staff, with guidance and constructive criticism provided by the Advisory Committee. It builds on previous work of the Unit but advances considerably the methodology, essentially quantitative in nature, for estimating demand for registered nurses in the hospital sector. The synthesis of manpower supply and demand data leads to an assessment of both the data and the nurse manpower situation in British Columbia.
2. Influence of the Workplace on Nurse Manpower in British Columbia: An Exploratory Study (Vol. III)

This report, commissioned separately, but placed within the mandate of the Advisory Committee, provides both a review of the nurse manpower situation in general and a qualitative assessment of workplace factors affecting nurse manpower in British Columbia. In this study, the essential factors influencing nurse manpower are defined and examined as they pertain to several groups of the main players in the nursing and health arenas.

4. IMPLICATIONS OF THE FUTURE HEALTH CARE SYSTEM FOR NURSING.

This brief overview, presented in chart form (see Appendix 4), results from the deliberations of the Committee (see Terms of Reference). Appendix 4 serves to identify areas of current and future issues pertaining not only to the current nurse manpower situation, but also the future of the health care system and the implications of such changes on nurse manpower planning. Specific economic, technologic, demographic, delivery mode related and educational, professional, workforce and management issues were isolated as central determinants of the nurse manpower situation. A thorough examination of such factors adds to the understanding of the nurse manpower milieu and renders a more meaningful interpretation of the combined study results.

The committee recognized that in the future, greater emphasis in the health care system will be placed on the geriatric medicine and Long Term Care sectors. This, together with technological advances in all sectors, makes it essential that the measurement of health care needs and services incorporate less tangible indices of supply and demand and quality of care than are considered in the present study. For example, whereas it has been customary to consider mainly concrete criteria in manpower deployment decisions (e.g. number of beds, occupancy rates, patient acuity), these may be more suitable in areas such as ICU/CCU, for example, where biological survival can be directly attributed to services provided. It is noted that to keep in step with constantly changing foci in health care, as well as with the desire to offer high levels of care, other more subjective and certainly less tangible barometers of both the quantity and preparation of nurses, and the outcomes of care provided, must be incorporated in addition to existing criteria. This also has implications for job satisfaction for nurses and especially for the broader health care delivery policies which may be considered in the future.

5. RECOMMENDATIONS OF THE NURSE MANPOWER STUDY ADVISORY COMMITTEE

The Recommendations of the Nurse Manpower Study Advisory Committee have been formulated taking into account the results of the Data Synthesis and Workplace Considerations studies in order to highlight the basic components for addressing nurse manpower issues. These are seen to be the essentials and they are therefore not prioritized. Rather together they form
the suggested basis for ongoing Nurse Manpower Planning in British Columbia.

1. In view of the identified gaps and weaknesses in the currently available data on nurse manpower activity and deployment, IT IS RECOMMENDED THAT:

   Improved monitoring and reporting systems be developed to provide information on:
   a) nurse attachment and turnover;
   b) vacancy rates, including Difficult-to-Fill
   c) personnel deployment, including both hours and persons.

Ref: Data synthesis recommendations: 1, 6, 7, 9, 11.
Workplace recommendations: 2, 3.

Responsible Parties: MOH, BCHA, Institutions

2. Both studies indicated that nurse manpower planning and related activity at the local level is largely undeveloped at the present time. Accordingly, IT IS RECOMMENDED THAT:

   Hospitals and other health care agencies be encouraged and assisted in developing the internal capability for nurse manpower planning, analysis and management.

Ref: Data synthesis recommendations: 11, 12, 21.
Workplace recommendations: 1, 2, 4, 6.
RNABC Nurse Manpower Planning Project.

Responsible Parties: MOH, BCHA, RNABC, HAABC, NAABC, Institutions.

3. Attempts to develop comprehensive measures of nurse supply and demand using existing data sources revealed some significant differences and problems in terms of data linkage, definitions and so on. Therefore, IT IS RECOMMENDED THAT:

   A provincial nurse manpower database be developed to provide the appropriate linkage of registration, payroll and other information for use by researchers and institutional manpower planners. The necessary steps should be taken to develop guidelines for the provision, linkage and distribution of these data, paying particular attention to ensuring the confidentiality and encryption of personally identifiable information.

Ref: Data synthesis recommendations: 1, 2, 3, 4, 5, 6, 7, 12.
Workplace recommendations: 2, 4, 6.

Responsible Parties: MOH, RNABC, BCHA, HMRU, Institutions.
4. In light of the findings in both studies that the provision of critical care nursing is currently a major problem in British Columbia, especially in Greater Vancouver, IT IS RECOMMENDED THAT:

Steps should be taken immediately to train 75 additional critical care nurses, including providing the appropriate incentives to undertake such training.

Ref: Data synthesis recommendations: 16, 17, 18.
Workplace recommendations: 8, 11, 22.

Responsible Parties: MOH, MAEJT, Institutions

5. Both studies, as well as the internal discussions of the Advisory Committee about the changing nature of the health care system and the role of nursing in that system, pointed to significant recent and anticipated future changes in the required educational preparation for nursing practice and management. Accordingly, IT IS RECOMMENDED THAT:

A major review of the nursing education system in the Province be conducted, including the examination of the form, funding, and articulation of policies and programs, the role and educational requirements of various nursing levels and specialties (both clinical and managerial), and the relative responsibilities of each major group with respect to the nursing education system.

Ref: Data synthesis recommendations: 19, 10, 22.
Workplace recommendations: 1, 7, 8, 9, 11, 15, 16, 19.

Responsible Parties: MAEJT, MOH, RNABC, NAABC, COUTH.

6. In view of the identified weaknesses of the current remuneration system in terms of attracting and retaining qualified nurses, as well as the changing nature of nursing practice, IT IS RECOMMENDED THAT:

Work begin immediately to redevelop the existing remuneration system for nurses in the Province, including classifications and the appropriate recognition of experience and specialized skills or job requirements.

Ref: Data synthesis recommendations: 7, 8, 18, 19, 22.
Workplace recommendations: 1, 8, 10, 11, 12, 14, 16, 19, 22.

Responsible Parties: MOH, HLRA, BCNU, RNABC, BCHA.
7. In light of the critical importance of the work environment in ensuring job satisfaction and retention among nurses, IT IS RECOMMENDED THAT:

Hospitals and other institutions make a concerted effort to improve the work environment for nurses, including developing more effective staffing, scheduling and utilization practices, enhancing the organizational support and communication systems, and improving current practices for attracting and retaining nurses.

Ref: Data synthesis recommendations: 11, 14, 15, 19.
Workplace recommendations: 1, 4, 5, 6, 13, 14, 17, 20.

Responsible Parties: Institutions, BCHA, HAABC, NAABC.

6. CONCLUDING REMARKS

Policy guidelines that define the level and type of services to be delivered, together with the budgetary allocation to accompany them, are essential to determining the number of persons required to provide the mandated level of service in the health care sector. Within the present system, if the status quo (in terms of currently observed employment patterns) is maintained, it appears that at least 2000 additional registered nurses are required to fulfil the existing budgetary allotments in British Columbia. This goal may be partially attained through training programs and increasing the number of new recruits in the system, or selective immigration policies. It must be emphasized, however, that the number of additional registered nurses required is largely and significantly contingent upon patterns of manpower deployment, employment mix, turnover, retention and indirectly, the future monitoring of the nurse manpower situation in British Columbia.

A number of interventions addressing such issues, designed with the purpose of alleviating the current situation, have been identified in the aforementioned recommendations. No single intervention, just as no single party, will be able to successfully deal with shortages of registered nurses; rather, the recommendations must be viewed as complementary and mutually reinforcing strategies. Considering the alternative, it is advised that these be explored and implemented without delay.
APPENDIX 1

LIST OF MATERIALS SUBMITTED TO THE NURSE MANPOWER ADVISORY COMMITTEE
LIST OF MATERIALS SUBMITTED TO THE NURSE MANPOWER ADVISORY COMMITTEE

1. Registered Psychiatric Nurses Association of British Columbia


2. British Columbia Council of Licensed Practical Nurses


3. The Hospital Administrators' Council of Greater Vancouver

APPENDIX 2

A SYNTHESIS OF NURSE MANPOWER DATA IN BRITISH COLUMBIA

EXECUTIVE SUMMARY
THE NURSE MANPOWER STUDY:

VOLUME II

A SYNTHESIS OF NURSE MANPOWER DATA IN BRITISH COLUMBIA

EXECUTIVE SUMMARY

1. INTRODUCTION

The data synthesis study focusses on the use of existing data to assess the perceived shortage of nurse manpower, especially registered nurse manpower. In particular, the questions that are addressed in this report are:

1. Is there a supply/demand imbalance?
2. If so, what is the extent of the imbalance (specifically with respect to actual numbers, geographic areas, specialty areas, sectors, qualifications)?
3. How good is the evidence supporting this assessment?
4. What would improve it?

This report presents a synthesis of existing supply and demand data, proposes a methodology for the estimation of demand for registered nurses, and, based on this discussion, offers an assessment of both the data and the nurse manpower situation in British Columbia.

2. APPROACHES TO THE ASSESSMENT OF SUPPLY AND DEMAND

There exist a variety of approaches to the measurement of supply and demand, many of which are applicable to the assessment of registered nurse manpower. The use of demand models for projection and building of scenarios to determine not only possible future situations but also the efficacy of possible intervention strategies constitute a viable and necessary component of this process.

3. THE CONCEPTUAL MODEL

A conceptual model was developed to identify data requirements and to provide a framework within which to classify the mechanisms underlying nurse manpower. This model points out the links between health outcomes, consumer and provider behaviour and the health care delivery system with other indices of nurse supply and demand in order to identify net nurse manpower requirements.
4. REGISTERED NURSES IN BRITISH COLUMBIA: SUPPLY SIDE DATA

Supply data for registered nurses as well as for licensed practical nurses and registered psychiatric nurses are presented and discussed. First, the activity rates among RNs and LPNs are found to compare favourably to those among the general female population in B.C., although it is pointed out that the actual number of trained but not employed nurses is impossible to ascertain. Specialty information indicates that the majority of RNs and LPNs are employed in the Hospital Programs Division sector, and more specifically for RNs, in the Acute Care sector. An increase in geriatric practice has been observed for LPNs while practice in other areas has contracted.

It is debatable whether unemployment rates act as a good barometer of supply, since these data are not sufficiently disaggregated to provide information on either the level of preparation of unemployed nurses or clinical specialties.

5. ESTIMATING DEMAND FOR REGISTERED NURSES

In this section, existing measures of relative demand are reviewed, and a model for projecting demand is presented. Demand estimates in general tend to be limited by several methodological problems, namely the definition of "need" in the absence of clearly articulated health manpower policy, the existence of non-quantifiable determinants of demand and, frequently, incompatible units of measurement in the data.

Measures of relative demand, such as vacancy statistics, indicate the direction and severity of unfilled demand. Difficult-to-Fill (DTF) vacancy statistics point to relatively high vacancy rates for RNs as compared to the average rate for other health professions in British Columbia. Furthermore, the data show that the highest DTF rates occur in the ICU/CCU areas, as well as in general nursing. Difficult-to-Fill nursing vacancies tend to be concentrated in the GVRHD, where the rates, as well as the absolute numbers, are higher.

The model for estimating registered nurse requirements consists of several steps. First, an undifferentiated demand estimate is produced. Secondly, two sets of conversion factors are applied to this estimate to derive the total required number of nurses, expressed in number of persons. This latter estimate is computed for a static scenario (which considers only continuous employees) and a dynamic scenario (which incorporates movement between employment status or RHDs). The projection model and computation of the conversion factors are described in detail in the report, and an example using 1986 data for the GVRHD is presented.

The assessment of the effects of movement in the labour force, the specialty and regional components of demand and the sensitivity of the health care system to fluctuations in both employment mix and manpower deployment are outlined. The analysis indicates that the greatest degree of movement in the system lies in the Casual employment component. On the other hand, the Part-Time component in the GVRHD remains relatively stable and does not seem to be particularly affected by movement in the labour
force. In British Columbia as a whole, the Part-time component is noticeably more affected by labour force movement.

Interesting results emerge from the development of hypothetical scenarios depicting changes in the composition of Full-time to Part-time to Casual staff as well as the average number of hours worked by each. The scenarios illustrate the magnitude of the decrease in the number of nurses required that results by either increasing the proportion of Full-time and Part-time staff or increasing the average annual number of hours worked.

This method of constructing scenarios could be applied with equal validity to test certain management decisions or manpower intervention strategies at the facility or regional/provincial levels respectively. Similarly, the method of estimating demand in its entirety, as presented in this section, has been developed to generate demand estimates at the provincial, regional or possibly hospital level.

6. ASSESSMENT OF THE AVAILABLE NURSE MANPOWER DATA

The existing nurse manpower data were assessed with respect to supply, demand and demand estimation considerations.

Despite the high quality of the registered nurse supply information that is provided, for the most part, by the RNABC registration database, it is limited by the lack of detail with respect to nursing specialties and subspecialties. This same criticism applies to CEIC Unemployment Insurance Statistics.

The two major sources of relative demand, the RNABC Vacancy Survey and the HMRU Difficult-to-Fill Positions Survey offer excellent insights into current nurse manpower trends. Although the DTF data do not consider Casual nursing positions, they are subjected to methodologically sound data collection techniques. Both sets of statistics are very amenable to conversion to rates, but the lack of an acceptable denominator (due mostly to lack of detail in specialty areas or incompatible categories) limits the utility of such an approach.

The forecasting model represents a rigorous and internally consistent methodology but the data which emerge from it must be interpreted keeping in mind several things. First, it must be considered that the conversion factors are derived from observed trends rather than from stated manpower or management policy. This is not a problem in itself, since the question of identifying "ideal" employment mix or deployment ratios is a difficult one, but it is vital to identify the criteria on which the demand estimates are based. Second, vacancy figures used to reflect unmet demand may produce a proportionately small degree of error in calculating total demand. Third, the lack of a unique identifier may affect the derivation of the demand figures, since despite efforts to overcome the possibility of double counting individuals in the exercise it cannot be guaranteed that this attempt was successful. It should be noted that the model, in its current state, applies only to the Hospital Programs Division sector.

The matching of estimated demand to known supply is problematic since
the two are not directly compatible, and therefore a precise figure of imbalance between estimated demand and known supply is not attainable. Still, a good estimate of demand may be derived from the model presented here. In addition, it also provides a forecasting function and a capacity to test and construct any number of scenarios which would provide descriptive information to be used for decision making at the provincial, regional or institutional levels.

7. ASSESSMENT OF THE NURSE MANPOWER SITUATION IN BRITISH COLUMBIA

Several observations regarding the nurse manpower situation in British Columbia may be made on the basis of the aforementioned data. While it is clear that apparent nurse shortages are of a recurring nature, it seems that the current situation is unique in terms of its effects at the regional level (greater severity is currently noted in the GVRHD in hospitals of all sizes) and the predominance of ICU/CCU vacancies. The exact magnitude of the supply/demand imbalances in individual nursing specialties and subspecialties has not been quantified at this time due to the unavailability of detailed supply data or even criteria on which to base such estimates.

Furthermore, the considerable degree of labour force motility (in terms of attrition and movement between districts and employment status) for RNs in British Columbia markedly effects demand. The greatest degree of movement occurs in the Casual sector.

Estimates of requirements for registered nurses in British Columbia in 1986 exceed supply, when supply is defined as the number of registered nurses employed in the acute care sector (with the exception of psychiatric hospitals which are not part of the Hospital Programs Division) as of December, 1986. This shortage is exacerbated by current patterns of employment mix, personal deployment and attrition in the nurse labour force. The total number of RNs who are prepared to participate in the nurse labour force is unknown. Similarly, it is not known whether nurses available for employment will match the level of preparation and specialty required in the vacant positions. Lastly, while the supply figures represent employed RNs up to a specific point in time, the demand estimate includes the total number of persons required to fill demand over the given year. For example, it is known that the December, 1986 supply data (employed nurses) do not include new recruits who have not yet engaged in nursing employment. Therefore the estimate of net balance must be considered according to the terms outlined above.

In conclusion, a supply imbalance as defined by a set of specific criteria has been identified. The data, taken together, indicate that the severity of the problem tends to be greatest in the ICU/CCU areas and especially in the GVRHD as compared to the province as a whole. Although there undoubtedly exist limitations to any analysis of supply and demand, much of the available data represent methodologically rigorous and sound approaches to reliable assessment of the nurse manpower situation in British Columbia.
RECOMMENDATIONS OF THE DATA SYNTHESIS STUDY

Nurse Manpower Supply and Demand Data

Improving the Nurse Manpower Database

It is recommended:

1. that a province-wide system of collecting and maintaining selected payroll data which is based on a common coding scheme for nurse personnel classification and/or cost-centre identification, as well as common definitions (see recommendation 7) of the reported data for all hospitals, be considered.
   Responsible Parties: BCHA, RNABC, MOH, HMRU

2. that a central data management system be identified and designated to facilitate access to and retrieval of data.
   Responsible Parties: BCHA, RNABC, MOH, HMRU

3. that data ownership, physical location and access to the databank for research purposes be clearly stated and agreed upon by all parties involved.
   Responsible Parties: BCHA, RNABC, MOH, HMRU

4. that a method of developing and using unique identifiers be implemented province-wide (or at the central databank level) in order to accurately track individuals' movements and examine life-cycle activity patterns in a comprehensive fashion.
   Responsible Parties: HMRU, BCHA

5. that data be archived for at least 10 years in order to provide for longitudinal analyses.
   Responsible Parties: BCHA, HMRU

6. that hospitals and other health care agencies be urged to systematically collect and carefully maintain payroll data that provides reliable information on individual nurses' employment status (e.g. full-time/part-time/casual) and particularly, changes in such status, as well as other movement (temporary or permanent) in and out of the nurse labour market.
   Responsible Parties: BCHA, NAABC, HAABC

7. that germane definitions and disaggregated categories of nursing specialty and subspecialty areas that are comparable to those used by employers and are, therefore, more appropriate for measuring manpower imbalances, be developed for the purpose of collecting nurse supply data.
   Responsible Parties: RNABC, Hospital Programs Division of MOH, BCHA

8. that these more fitting specialty definitions be routinely used by educators, employers, professional associations, as well as researchers, planners and policymakers.
   Responsible Parties: NEABC, BCHA, RNABC, MOH, MAEJT, HMRU
9. that the Difficult-to-Fill Positions Survey incorporate vacancies for casual nursing positions, and initiate reporting procedures that would allow for greater disaggregation by nursing specialty and subspecialty areas.

Responsible Parties: HMRU

10. that the Unemployment Insurance statistics for hospital nurses be reported and collected on the basis of more disaggregated unit group codes in order to be comparable to nursing specialty and subspecialty (see recommendation 7) areas.

Responsible Parties: EIC, CNA

Utilization of Existing Data for the Monitoring of the Nurse Manpower Situation in B.C.

It is recommended:

11. that individual hospitals and other health care facilities examine and analyse staff records pertaining to turnover, personnel mix and total paid hours per status category for the purpose of using this information in planning for effective approaches to nurse manpower deployment. The RNABC Nurse Manpower Plan may be examined as a framework for use in conjunction with this analysis.

Responsible Parties: HAABC, NAABC, RNABC

12. that agencies be encouraged to identify personnel responsible for nurse manpower planning and to provide them with basic training in Management Information Systems.

Responsible Parties: MOH, NAABC, RNABC, HAABC

13. that greater use be made of the Difficult-to-Fill Positions Survey in decision making concerning the nurse manpower situation in B.C. The survey (especially if enhanced as suggested in recommendation 9) has proven to be a reliable barometer of both regional and specialty imbalances.

Responsible Parties: MOH, MAEJT

II. The Nurse Manpower Situation in B.C.

Nurse Management

It is recommended:

14. that, in the light of the known impact of Full-time, Part-time and Casual nurse staffing ratios, and the average number of paid hours in each employment category, hospitals be made aware of the sensitivity of the system to those factors and be urged to ensure that optimal levels of nurse manpower deployment are attained.

E.g. increasing the Full-time and Part-time components by 5 percent and decreasing the Casual ratio accordingly in a hypothetical scenario in the GVRHD resulted in a
decrease in the number of nurses required over a period of one year by 650 persons; upward adjustments of the average number of paid hours, expressed as a proportion of an FTE, to 1.0 (F/T), 0.6 (P/T) and 0.4 (Casual), respectively, resulted in a further expected decrease of 1686 persons.

**Responsible Parties:** BCHA, HAABC, NAABC, BCNU

15. that, in the light of the known impact of current recruiting patterns on new graduates, an advance planning system for the expedient and efficient placement of new graduates be implemented so that more effective deployment is made of available supply.

i.e. as evidenced by the 40 percent increase in Practising RNs, not employed in nursing between June and December, 1986, which coincided with the introduction of 805 initial registrants.

**Responsible Parties:** BCHA, HAABC, NAABC, NEABC, BCNU

**Nurse Manpower Policy and Planning**

It is recommended:

16. that the various existing reports and recommendations on preparation for Critical Care Nursing be reexamined in light of the documented long term vacancies in this area, especially in the GVRHD.

i.e. 57 (average) quarterly reported DTF vacancies for Critical Care Nurses in 1986 in B.C., 82 percent of which were in the GVRHD; 71 DTF vacancies for Critical Care Nurses in June 1987 in B.C., 94 percent of which were in the GVRHD.

**Responsible Parties:** MOH, MAEJT, NAABC, BCNU

17. that methods for optimum deployment of skilled Critical Care Nurses be investigated, particularly in the GVRHD.

**Responsible Parties:** HAABC, BCNU, NAABC

18. that additional incentives be offered to encourage nurses to undertake Critical Care training and employment, particularly in the GVRHD.

**Responsible Parties:** HAABC, NAABC, BCNU, NEABC

19. that, in the light of the recurring nature of nurse shortages, systematic educational and workplace incentives be developed and implemented, even in the absence of perceived imbalances.

**Responsible Parties:** MOH, RNABC, BCNU, MAEJT

20. that the outcome of these incentives (see recommendation 19) be monitored and evaluated for its impact on the nurse manpower situation.

**Responsible Parties:** HMRU
21. that scenarios of the likely future health care system, especially in relation to nurse manpower, be articulated and constructed. In this manner possible intervention strategies could be planned and tested before such action is necessary.  
**Responsible Parties:** MOH, RNABC

22. that the long term monitoring and evaluation of the nurse manpower situation also consider other nurse manpower categories, such as registered psychiatric nurses, licenced practical nurses, and nursing aides, as well as the manpower situation of related professions in the workplace.  
**Responsible Parties:** MOH, RNABC, BCCLPN, RPNABC
APPENDIX 3

INFLUENCE OF THE WORKPLACE ON NURSE MANPOWER SUPPLY IN BRITISH COLUMBIA:
AN EXPLORATORY STUDY

EXECUTIVE SUMMARY
THE NURSE MANPOWER STUDY:

VOLUME III

INFLUENCE OF THE WORKPLACE ON NURSE MANPOWER SUPPLY IN BRITISH COLUMBIA: AN EXPLORATORY STUDY

EXECUTIVE SUMMARY

A. Introduction:

The report on the influence of the workplace on nurse manpower in British Columbia forms part of the larger Nurse Manpower Study commissioned by the Deputy Ministry of Health in March, 1987. This report attempts to define workplace factors and their influence on future nurse supply in British Columbia. The report includes findings, analysis and recommendations for future action.

B. Methodology:

The study was conducted in an exploratory manner in order to document the attitudes and opinions of a cross-section of industry representatives in institutions across the province. The survey took place in ten facilities in four regions of British Columbia. Hospitals were selected on the basis of size, location and variable experience with difficult-to-fill nursing positions over a seven year period.

Data collection involved semi-structured interviews with the hospital administrator, nurse administrator, financial manager, nursing staff representatives, a physician staff representative and a director of a non-nursing patient care service in each agency. A descriptive survey was also conducted to collect data on current B.C. hospital employer practices and programs for tracking, monitoring, attracting and retaining registered nurses in facilities.

C. Limitations of the Study:

The sample size of the study is small (9% of total B.C. facilities with beds) but reflects the historic nursing manpower problem in B.C. The study findings are not representative of the total hospital or nursing experience in the province. Given the qualitative nature of some of the data, the study is subject to researcher bias. Even with these limitations in mind, the study was successful in exploring a number of RN manpower issues endemic to the hospital workplace. The interviews were directed at many organizational participants responsible for change. This approach increased the profile of the issue outside of the nursing service, as it should be regarded as an industry wide problem.
D. Compliance:

All ten of the hospitals in the sample agreed to participate in the study. A total of 77% of the planned (100) interviews were completed. A total of 11 (multi-site) facilities completed the employer survey.

E. The Policy Environment:

Working conditions have always been a concern for the nursing occupation. However, its importance in manpower discussions waxes and wanes with general economic conditions and the strength of the "professional" movement within nursing. The subject of working conditions cannot be divorced from the observation that the nursing profession is in a period of transition. Nor can we define the problems within the workplace outside of the "legacy of Canadian manpower policy" (Lomas and Barer, 1986). Our history will not allow us to start from scratch to redress some of the manpower problems of the non-physician professions in the Health Care System.

Solutions or improvements in working conditions for nurses will have to be implemented in an increasingly "constricted environment." The policy environment includes many forces which are likely to further "diminish our control of human resources" in health care. This will mean many internal and external pressures on organizations to make operational adjustments to meet the "new demands" for human resource management.

F. The Workplace, the Work and the Workforce:

Working conditions for nurses involve all of the organizational features of the environment in which they are employed. In general, hospitals seem to have become less satisfying places to work. Given the hospital's setting's complex, stressful and somewhat unmanageable environment, employee alienation occurs. Nursing discontent with hospital working conditions manifests itself in four ways; job dissatisfaction, intent to leave, turnover, and an inactive workforce.

The major reasons for nurse discontent with hospital employment include:

1. Lack of organizational power and influence of nursing within institutions;
2. Lack of organizational support for the nursing function and the working nurse in hospitals;
3. Poor communication practices at all levels of the organization;
4. Poor supervision and leadership issues between levels of the nursing service;
5. Use of the RN resource; staffing; scheduling; and utilization practices within facilities;
6. Lack of economic incentives and rewards for job demands, specialization and performance;

7. Role/career barriers to individual growth, autonomy, opportunities for advancement and clinical practice;

8. Lack of educational opportunities, support and funding. Discrepancies between educational values and operational settings. Confused educational systems for nurses;

9. Physician/nurse relationships;

10. Changes in the acuity, type, age of patients and practice demands of patient care. Insufficient recognition of these changes by consumers, funding bodies and nursing management systems;

11. Stress;

12. Low status of nursing as a job, as a profession and as a career.

Many studies have pointed out that it is the nature of the nursing job, not the nurse, which needs to be addressed if we are going to maintain adequate supply.

Nursing work has changed dramatically in the last 30 years. The health care systems expansion, intensification of hospital work, increased sophistication of medical technology, sub-specialization of medicine and the proliferation of paraprofessionals in hospitals have all contributed to the increasing complexity and demanding nature of today's nursing job. The substance of the majority of the work that nurses do in hospitals is labor intensive and technical. Stresses of work life, personal and family life and the long, variable hours of work make the nursing job far less attractive and competitive than it once was.

There have also been changes in the labor force participation patterns of nurses. Even more significant are the educational and social changes for women that have occurred since the 1960s. These trends are having an impact on supply.

Employers in B.C. can now expect a maximum of 20 years of practice life from the youngest cohort of nurses currently in the system (Kazanjian et al, 1986). Within this 20 year period, there may be at least six distinct phases in nurse worklife attachment. In addition to the traditional patterns of job mobility for nurses, there is an increasing trend towards part time and casual or temporary employment.

Evidence suggests that hospital employers in B.C. no longer have a "captive" nurse workforce and must increasingly adapt attitudes, marketing and retention strategies if they are going to attract and retain nurses.
G. Turnover:

It is to the mutual advantage of both employers and employees to institute manpower policies which promote RN career longevity, re-recruitment, job stability and decreased turnover. A certain proportion of turnover is preventable. Strategies to interrupt the process of RN turnover can be developed and implemented. Rates of annual turnover reported for nurses in the U.S. and Canada range from 50% to 0%. A 1984 survey of B.C. hospitals found the average annual turnover to be 32% of the RN positions in the 52 reporting hospitals (Division of Health Services Research and Development, 1984). The cost of replacing a nurse has been estimated to vary from 1/2 of the first year's wages to $3,000 per nurse (Nova Scotia, 1981). Although we have no cost estimates for B.C., turnover management can be cost-effective during a time of cost restraint. Yet the cost/benefit of programs for RN retention have rarely been evaluated.

H. RN Workforce Attachment in B.C.:

Much of the "big picture" on overall workplace attachment patterns for B.C. Nurses can only be pieced together from existing databases and "one shot" surveys. This initial information gives a general direction to go in establishing a meaningful set of indicators to measure workplace factors as they impact on RN nurse supply over time. The workplace study found that one-fifth (20%) of all currently registered and practicing nurses (RNABC membership tapes) have been with their employers one year or less. In 1987, a large portion of the B.C. RN workforce had been with employers three years or less (41%). However, the majority of nurses in B.C. (51.6%) stay with employers five or more years.

Although a statistically significant association was found between the length of stay and employment setting for nurses in B.C., no significant difference was found between length of employment in acute care when compared to all other settings of RN employment. The study found that there is a significant difference in length of stay and position (staff nurse, head nurse, etc.) in acute care hospitals. Approximately 52% of all staff nurses in B.C. hospitals stay four years or less compared to all other acute care positions (30% stay four years or less). The fourth year of service for all acute care nurses represents a transition point, with the majority staying less than three or more than five years.

This study found that there is currently no ongoing standardized mechanism or responsibility to monitor employee attachment and turnover rates for RNs in B.C. This is a manpower planning deficiency when it comes to:

1. defining whether or not we have a problem;
2. determining the magnitude of the problem;
3. monitoring how the problem is changing over time.
4. comparing the nurse workforce with other health professions or occupations.
I. British Columbia Employer Tracking and Monitoring Practices for RNs:

The workplace study also examined current employer practices to routinely collect and monitor RN employment patterns. The study found that:

1. The majority of the study hospitals (91%) have some means of assessing the conditions surrounding RN employee separation.

2. However, fewer than half (45%) of the sample have ongoing systems to calculate the institution's rate of RN turnover.

3. A slight majority (55%) of the hospitals have a system of position control and vacancy monitoring in place.

4. The majority (91%) of the hospitals studied participate in the HMRU Quarterly Difficult-to-Fill Survey of provincial RN positions vacant for more than 30 days.

5. Most facilities (82%) have placed a high priority on the monitoring of absenteeism of RN employees.

6. Only 18% of the sample have any means to track length of service patterns for RNs in the facility.

7. The actual cost of RN turnover for the study hospitals is generally unknown (5%).

The study found that some of the necessary data to track and monitor RN employee practices in B.C. facilities is collected. However, the distribution of these systems by hospital size and region appears to be uneven in the province. The extent to which this data is standardized, analyzed and used for human resource management and manpower planning in nursing services is currently unknown. This is clearly a direction that management information systems in B.C. hospitals and nursing services in particular require. Without such baseline data on RN employment patterns, very few rational or targeted manpower and retention policies are likely to be instituted and properly evaluated in specific institutions.

J. Workplace Factors Most Likely to Influence Supply:

The Nurse Workplace Study assessed the impact of specific workplace factors on the future supply (next ten years) of nurses in B.C. The overall identification and ranking of workplace factors by the 77 people interviewed is contained in Table VI. Factors were given a weighting according to the order of importance individuals or groups assigned to the issue.

The ten major workplace factors (in order of importance) likely to effect the long term supply of RNs in B.C. are:

1. staffing, scheduling and utilization practices
2. education/service disparities
3. economic incentives  
4. a) organizational support  
   b) leadership  
5. patient care  
6. specialization  
7. organizational power  
8. nurse/physician relationships  
9. clinical recognition  
10. status

Table VII looks at the relative importance assigned to each of the ten major factors by hospital region. The major difference in the regional breakdown of issues is the dominant concern of the large urban hospitals with the issues of education. Other groups see staffing, scheduling and utilization as the most important factor. This may be due to the preponderance of teaching hospitals in the area who feel the stresses of advanced educational needs most acutely. For the smaller hospitals (<400 beds) nurse-physician relationships and organizational support issues figure prominently in working conditions. All hospitals in the sample share the concern for staffing, scheduling and utilization practices on supply. Table VIII itemizes the relative ranking of issues by category of participant.

Perhaps telling, nurse administrators, hospital administrators and finance directors do not see staffing, scheduling or utilization as one of the three major working conditions issues for nurses. Others closer to the action; nurses, doctors and other department heads, view it as the most important issue. Educational issues are the number one concern of administrators on future supply. Nursing administrators view leadership as the key hope for the future. Finance directors, perhaps true to their calling, view revised financial incentives as a key to long term supply. For working nurses, organizational supports for the nursing function and the working nurse are the second most important issue in future supply, followed by educational issues. Economic incentives rank fourth, along with patient care issues. Within each of the ten major workplace factors identified by the study sample, a number of sub-issues emerged. These are detailed in Chapter IX, along with specific recommendations for each issue.

K. Existing Efforts in B.C. to Attract and Retain RNs:

Another aspect of the Nurse Workplace Study identified current B.C. hospital practices to attract and retain nurses. Figure 5 contains the distribution of the programs or activities currently being used by hospitals to attract, maintain or increase RN work satisfaction in B.C.

Assuming that these programs make a difference, areas which need more attention by employers include:

1. day care
2. transportation/parking/relocation assistance/housing when necessary
3. guaranteed placement on shifts
4. clinical ladders/advancement opportunities
5. primary nursing
6. omission of non-nursing tasks
7. exchange programming
8. refresher programs
9. flexible scheduling
10. participatory management
11. open staff forums

Further efforts should, however, be associated with clear manpower objectives and an evaluation component.

L. Conclusions:

The workplace study identified a comprehensive set of work place factors influencing nurse manpower in B.C. Specific recommendations and associated responsibilities have been developed to promote the retention of the nurse workforce in facility settings.

Many people contacted during the study felt that throwing money at these problems was not the answer. Many of the identified workplace factors can be improved with managerial, attitudinal and improved human resource systems. Manpower, institutional and professional policy must be directed at three levels of intervention:

1. removing job dissatisfaction and enhancing jobs for individual nurses;
2. adjusting organizational leadership styles, structures, supports, policies and procedures to attract and retain nurses;
3. addressing significant environmental determinants of malaise, including; economic, educational, professional, interprofessional, political and image problems.

No one action or party in the system can resolve these problems. However, the most significant gains are likely to take place with enlightened and determined nurse manpower planning and policy developments at the institutional level in British Columbia.

RECOMMENDATIONS OF THE NURSE WORKPLACE STUDY

The general study recommendations are oriented to developing a more responsive environment and direction for solutions to the workplace factors found to be currently operating on the long term supply of RNs in B.C. hospitals.

Organization of Recommendations:

The following section outlines the general recommendations of the study and is organized in order of priority as well as indicating associated responsibilities for intervention. Overall study
recommendations parallel many of the proposed solutions identified in the literature review summary (Appendix V).

Due to the analytical focus of the study, many other study recommendations are detailed in nature and are most often addressed to the institutional level of intervention. These recommendations have been included in Chapters VIII, IX, and X in conjunction with the study results. These specific recommendations are also presented in order of priority and indicate predominant players in the system who need to be involved in implementation planning or problem solving.

Strategic Planning:

It should be noted that many other nurse manpower issues need to be addressed (i.e. production, demand) but are considered outside the terms of reference of this project. All study recommendations assume continuation of the status quo in relation to identified social and economic trends. Use of the recommendations for strategic planning purposes should proceed from the priority recommendations made in the General Recommendations Section. More detailed implementation planning within each issue area can then flow to the specific ranking of other workplace recommendations found in Chapters VIII, IX and X.

A. General:

It is recommended:

1. that the registered nurse workforce no longer be considered an "inexhaustible resource" by the pool of hospital employers in the province. Registered Nurse employers in the province need to:
   a) recognize and further adapt to the identified changes in the characteristics, trends and attitudes of the nurse workforce.
   b) increasingly invest in competitive marketing and retention strategies to attract and maintain employees.

   Responsible parties: MOH, BCHA, HLRA, BCNU, Institutions.

B. Monitoring:

It is recommended:

2. that institutions and nursing services, in particular, be given resources to develop systems and expertise for improved human resource management, monitoring and manpower planning. This includes the development of more rational, targeted and evaluation approaches to retention and recruitment programming.

   Responsible parties: MOH, BCHA, Institutions, NAA.

3. that an ongoing, simple and cost-effective provincial mechanism be established to monitor RN workforce attachment in B.C., including
standardized industry turnover rates and RN length of employment patterns by service, age, setting, etc.

**Responsible parties:** MOH, RNABC, BCHA.

C. **Staffing Scheduling and Utilization Practices:**

It is recommended:

4. that hospital, nursing and financial administrators place more priority on improved staffing, scheduling and utilization practices to ensure the long term supply of RN staff in facilities.

**Responsible parties:** MOH, Institutions.

5. that more alternatives be developed in the marketplace (part time work, job sharing, "one" only or weekend shifts) which would assist supply, yet remain cost-effective.

**Responsible parties:** HLRA, BCNU.

6. that more expertise be developed within institutions and across the province in order to develop options for scheduling and deploying the nurse resource in facilities.

**Responsible parties:** NAA, BCHA.

D. **Education:**

It is recommended:

7. that parties in the province responsible for the form, funding and articulation of nursing education in B.C. formally address the confusion and controversy in the nursing education system.

**Responsible parties:** RNABC, MAEJT, MOH, BCHA, NEC, NAA, BCMA, Institutions.

8. that nursing educational policy, funding bodies and institutions address three **simultaneous** production requirements:

   a) adequate definition, provision and incentives for specialty, head nurse and staff development training for today's nurses;

   b) transitional, articulation and support strategies to upgrade those in the current workforce who seek it;

   c) definition of future system supports to provide a critical mass of academically prepared nurses for all fields of endeavour (clinical, management, research, teaching).

**Responsible parties:** RNABC, MAEJT, MOH, BCHA, NEC, NAA, BCMA, Institutions, HAAAB.

9. that stronger alliances and joint ventures be formed between employers, colleges and universities in order to effectively deal with the provision of realistic nursing education and training in the province.

**Responsible parties:** Institutions, HAAAB, MOH, MAEJT, NEC, NAA.
E. Economic Incentives:

It is recommended:

10. that the Ministry of Health recognize the limits that existing funding levels place on improving overall working conditions for nurses in the province.
   Responsible parties: MOH.

11. that there be more explicit recognition of hospital training needs for RNs in the health dollar. There must be improved sources of funding (public or private) in order to provide better employer assisted education and training programs. There should be consideration of relaxed policies to encourage entrepreneurial or profit making activities by hospitals to fund or manage employee support/development programs.
   Responsible parties: MOH, MAEJT, BCHA.

12. that the growing specialization of nurses be addressed professionally and economically.
   Responsible parties: RNABC, CNA, MOH, BCNU, HLRA.

F. Organizational support:

It is recommended:

13. that senior hospital administrative support for nursing vis à vis budget, equipment, nurse/physician conflicts be demonstrated, as well as nursing administrative support for nurses and delegation of decision making to the lowest level of work, whenever possible.
   Responsible parties: Institutions, HAABC, NAA.

G. Leadership:

It is recommended:

14. that hospital administrative assistance/training for senior nursing personnel in the province be improved, as they adapt nursing services and systems to the management and financial demands of today's hospitals. Re-examination of the leadership, structure and style of nursing administrations, where appropriate.
   Responsible parties: MOH, Institutions.

15. that the requirements for management training programs available to head nurses in the province be defined and augmented.
   Responsible parties: MOH, MAEJT, NAA, HAABC, BCHA.
H. Patient Care:

It is recommended:

16. that nursing role in facilities be examined and clarified.  
   Responsible parties: Institutions.

17. that cost-benefits of alternative delivery modes, personnel and 
    delegation of work within nursing services be examined.  
   Responsible parties: Institutions.

18. that patients and families be educated as to the changing objective 
    and forms of nursing care in today's hospital.  
   Responsible parties: MOH, BCHA.

I. Specialization:

It is recommended:

19. that there be a greater understanding by employers of the specialty 
    impact on nursing skill, competence and willingness to work in areas 
    in which they do not feel confident.  
   Responsible parties: Institutions.

J. Organizational influence:

It is recommended:

20. that more attention be paid to two-way communication and staff 
    participation in nursing services.  
   Responsible parties: Institutions.

K. Nurse/Physician Relationships:

It is recommended:

21. that there be better development of team work norms and reciprocal 
    expectations among physicians and nurses in B.C. hospitals.  
   Responsible parties: BCMA, NAA, RNABC, HAABC, Institutions.

L. Clinical Recognition:

It is recommended:

22. that alternative mechanisms of rewarding clinical practice be explored 
    by responsible parties in the province (i.e. levels of practice, job 
    classification, decompressed salary ranges, merit increases, role 
    modeling, teaching).  
   Responsible parties: BCNU, HLRA, NAA, MOH, RNABC.
M. Status:

It is recommended:

23. that there be a concerted effort on the part of the profession to market and sell its image, both within hospitals, to the general public and to those of high school age. 

Responsible parties: RNABC.
APPENDIX 4

IMPLICATIONS OF THE FUTURE HEALTH CARE SYSTEM FOR NURSING
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<td>• increasing % of women in the workforce and as heads of households</td>
<td>• see Workplace Considerations</td>
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<td>• demands outside of the workplace</td>
<td>• non-nursing career options for women will continue to expand</td>
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<td>• economic/psychological/demographic characteristics of the workforce</td>
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<td>Organization and</td>
<td>• inconsistency of role definition with respect to functions and duties</td>
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<td>• improved clinical and management skills for those in nurse leadership positions (all levels)</td>
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