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MANAGEMENT OF HEALTH SERVICES BY NURSES

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Management of Health Services by Nurses

by

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Abstract

Nurses have many responsibilities within the health services. Because of the wide range of these responsibilities, sound, effective management and leadership by nurses is essential. However, relatively little systematic information of a global nature exists on their management activities and management training. This study was undertaken in 1990-1991 on the basis of material collected in 1988 for a conference supported by the Rockefeller Foundation.

The report describes the major managerial functions of nurses in health systems, and identifies major problems for nurses in management positions. Actions are suggested to overcome them, including improving basic nursing education, developing clear job descriptions, ensuring opportunities for career advancement, and improving understanding of nurse migration. The report also makes recommendations for appropriate management education at the basic, post-basic and university levels.

Contents

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EXECUTIVE SUMMARY

Management of Health Services by Nurses

Nurses have many responsibilities within the health services. Because of the wide range of these responsibilities, sound, effective management and leadership by nurses is essential. However, despite the importance of the work of nurses, relatively little systematic information of a global nature exists on their management activities and management training. In 1988, the Rockefeller Foundation supported a conference for nurses, physicians, health service administrators, and management scientists from 20 countries. Five major problems in nursing management were identified and recommendations for improved education and research were made. This study was undertaken in 1990-1991 to expand the 1988 effort. The specific aims were to:

1) broaden understanding of the management and leadership by nurses in organizations and communities, and at district and national levels:
2) identify the major problems for nurses in management positions:
3) increase understanding of the content and design of nursing education programme;
4) hasten the development of knowledge for improved management by nurses.

The frame of reference for the study was developed on the basis of the 1988 conference report. Each respondent read the report and then described for his or her country:

1) the senior leadership positions for nurses, the main functions and characteristics of nurse leaders, and their involvement in planning and policy activities;
2) the major problems for nurses in management positions and actions to overcome these;
3) the subjects covered in basic, post-basic, and university education and recommendations to improve nursing management education;
4) the most important research topics and methodologies for the field;
5) useful theories for improving nurses' management.

The study was an exploratory comparative survey, using a mailed, self-administered, 15-item questionnairé. A network sample of 172 people in nursing (80%), management (9%), public health (8%), and medicine (3%) was drawn from 76 countries in all six WHO regions and four development groupings. The observational unit of analysis was individuals in four fields. The explanatory units of comparison were country, regional and development groupings. Inter-rater reliability and a panel validation exercise were used to ensure validity.

Sixty of the 76 countries had senior nurses in the ministry of health, but although least developed countries had more nurses in the ministries, respondents from these tended to describe fewer senior leadership positions overall than those from developed countries. Administrative and personnel functions were reported most often for the least developed and developing countries. In Eastern European and developed countries, determining organizational structure and policy, planning, setting standards, and coordinating were described more often. Few functions were reported for all countries pertaining to information flow, budgeting and accounting, and evaluating. The characteristics of nurses which contribute to managerial success were identified as: being experienced and educated in nursing and management; having planning, policy, and budgeting skills; being decisive, diplomatic, and collaborative; and having access to human and material resources. It was found, especially at the national level, that there was comparatively little involvement by nurses in health planning and policy activities. This problem, in part, derives from nurses not being adequately prepared for management and the poorly structured and managed health systems in many countries.

The 10 major problems for nurses in management positions were identified as being:

1) the shortage of nurses;
2) a shortage of well-educated nurse managers;
3) little participation by nurses in planning and policy activities;
4) lack of recognition and low status of nursing;
5) poor working conditions;
6) the subordinate role of nurses;
7) inadequate information systems;
8) little interprofessional collaboration and teamwork;
9) the need for supportive legislation;
10) the lack of emphasis on primary health care.

Several of the actions suggested to overcome the problems included improving basic nursing education, developing clear job descriptions, ensuring opportunities for career advancement, and improving understanding of nurse migration. Also mentioned was the need to recruit nurses and foster closer sectoral ties between education and service. The importance of nurses' determining policy to improve regulations and legislation was mentioned fairly often. Less mention was made of nursing education that is relevant to community need. Other actions to overcome the problems included improving nurses' salaries and benefits and the safety of the work place, developing simple but useful information systems, and promoting interdisciplinary education.

Although considerable knowledge and technical skill are required to identify health needs, manage the nursing services to address these needs, and evaluate the results, the management content in nursing programmes is poorly developed in many countries. There appears to be some basic leadership and administrative content in nursing education, but the content relating to national health systems and strategic management is generally weak. For developing countries, when research is taught, the emphasis is on promoting awareness of the scientific method and basic research methodology. Research is part of nursing education at the basic, post-basic and university levels in many developed countries. The topics considered most important included: availability and deployment of nursing personnel, quality and cost of care, and the organizational structure of delivery systems. The research methodologies most often reported were firstly, descriptive studies and surveys, and secondly, programme evaluations. The most useful theories related to such areas as leadership, management, organization design and behaviour, clinical epidemiology, social equity, nursing, caring, and health economics.

The management role of nurses in the health services should be viewed in the context of the overall health system. An important recommendation of the report was to develop education and research programmes to promote greater understanding by nurses in management positions of the components of health systems, the relationships of the component parts, and the influence of the main social, cultural, political and economic factors that contribute to health for all. The major managerial functions of nurses in health systems are described in the report and recommendations for appropriate management education at the basic, post-basic, and university level are provided. Recommendations to build knowledge for nursing management include:

1) conducting studies and programme evaluations that are relevant to health needs and are economically feasible;
2) encouraging interdisciplinary studies and policy and action research;
3) using existing theoretical knowledge from nursing, management, medicine, public health, and economics to develop management capabilities of nurses.

SECTION 1

Introduction

Nursing is the largest sector of the health care workforce. In nearly all countries nurses give direct care and supervise the work of others. They are responsible for many of the services provided to people in communities and hospitals. Because of their wide responsibilities and large numbers, it is vital that they have good leadership and effective management.

The leadership potential of well-prepared nurses for the implementation of primary health care and for the achievement of the global strategy of health for all has been recognized by the World Health Assembly.[1] Primary health care is essential health care provided at a cost a country and community can afford using practical, scientific, and socially acceptable methods.[2] The Assembly urged Member States to encourage the appointment of nurses to senior leadership and management positions and to facilitate their participation in planning and implementing countries' health activities. Member States were also encouraged to support the education of nurses for research and to facilitate studies focusing on the development of more efficient and effective methods of employment. This was intended to address the need to recruit, retain, educate, and improve the motivation of nursing personnel. The Assembly also requested the Director-General of the World Health Organization (WHO) to increase support to strengthen the planning, implementation, and evaluation of the nursing component of national health programmes and support nurses' participation in health research including the development of information systems.[1]

Despite the need for leadership and management by nurses, relatively little systematic information exists about nurses in management positions, including their participation in planning national health activities and determining policy. The "Management of Health Services by Nurses" project was therefore conducted in 1990-1991 to improve understanding of nurses' leadership and management and the changes required to develop these capacities and roles to meet the needs of health care services.

Study Purpose and Aims

In 1988, the Rockefeller Foundation supported a conference for 25 leading nurses, physicians, health service administrators, and management scientists drawn from 20 countries. For the conference, a health system model was presented by Milton Roemer[3] and five major problems for nurses in management were identified. Recommendations for improved nursing education were also formulated, as was a research agenda. The purpose of the 1990-1991 project was to expand and extend the work begun at the conference in 1988. The specific aims were to:

- broaden understanding of the management and leadership role in the health services by nurses in organizations and communities and at district and national levels;
- identify the major problems for nurses in management positions;
- increase understanding of the content and design of nursing education programmes;
- hasten the development of knowledge for improved management by nurses.

The frame of reference was developed on the basis of the 1988 conference discussions which were published as the final chapter in a book of solicited papers.[4] This earlier work, found in Annex A, was the point of departure. Each study respondent read the chapter and then described the following in his or her country:

- the leadership positions for nurses, the main functions and characteristics of nurse leaders, and their involvement in planning and policy activities;
- the major problems for nurses in management positions and actions to overcome these;

- the subjects covered in basic, post-basic and university education and recommendations to improve nurses' educational preparation;
- the most important research topics and the most appropriate research methodologies;,
- proposals for improving nurses' management of the health services.

Background and Terminology

There is a long tradition for management and leadership by nurses. Florence Nightingale, the founder of modern nursing, established many of today's guiding principles in the health services for determining organizational structures and policy, managing personnel, setting standards, developing information systems, and evaluating the quality of care.[5,6] The Splanes of Canada, in their study of senior nurses in national ministries, described Nightingale as a model leader worth emulating. They discussed her policy activities at the highest level of government.[7] Nightingale was also an international authority. She collected information about people's health and health care in Britain, France, Germany, India, New Zealand, and Turkey.[8,9] She was methodical as well. John Thompson, chief of the Division of Health Services Management at Yale University in the United States, described research in his field as "merely carrying out some of the ideas suggested in Miss Nightingale's work."[10,11]

Roemer, a foremost authority on international health, stated that it is more and more common for nurses in ministries of health and at provincial and district levels to have many management responsibilities. He continued by describing the great need for nurses who are appropriately educated for leadership and management in a health system.[12] A "health system" has been defined by WHO as "the complex of interrelated elements that contribute to health in homes, educational institutions, workplaces, public places, and communities, as well as in the physical and psychosocial environment and the health and related sectors."[2] "Health services" consist of the institutions and organized activities through which health care is provided.[2]

Definition of Management

Management can be defined as planning, organizing, operating, and evaluating.[2] To plan, information is needed about past events, their costs, benefits, and results. Skill in planning by nurses is widely required in communities, hospitals, and at district and national levels to forecast personnel requirements based on appropriate assessment of health needs, people's readiness, and the available resources.[13] Planning skill is necessary to develop service and education openings and to formulate budgets that can function as a guide to action. To organize, skill is needed to assess the capabilities of people and the characteristics of the social and political environment. Knowledge of authority relationships when combined with assessment skills make it possible to design the most appropriate organizational structures and programmes for the delivery of health services. To operate a health service and to contribute to the operation of a national health system, skill is needed to obtain and maintain human and material resources, to work cooperatively with many individuals and groups of people who often hold diverse views, to set standards, to develop useful information systems, to ensure adequate levels of performance, and to coordinate people and activities. To evaluate people and programmes requires skill in communicating and the expertise to assess the results or outcomes.[14]

A more precise definition of management, and the one used for this report, is that management is determining organization structure, determining policy, planning resources and programmes, setting standards, administering resources, ensuring information flow, budgeting and accounting, managing personnel, training and developing staff, monitoring and evaluating, and coordinating.[2,15]

Determining organization structure involves understanding the work that needs to be done and the required resources, then organizing the resources and activities in workable units where responsibilities and authority are clear. Determining policy is gathering information about health and health delivery problems, bringing these to the attention of officials, determining ways to alleviate the problems, formulating general statements of courses of action to improve the situation, and being aware of political factors. A national health policy is the decisions to pursue actions aimed at achieving defined goals for improving the health situation.[2] Planning for resources and programmes is developing standards and

deciding on the activities to achieve these within a specific time-frame. Plans show the main lines of action to be taken, by whom, and when. Planning takes into account traditions, customs and the available and future resource requirements. Resources in the health system most often are people, information, funds, supplies and equipment, and facilities. A programme is an organized aggregate of activities for achieving objectives. Setting standards is determining normal resource requirements and acceptable costs for an agreed on level of performance and the desired quality of health care. Setting standards involves obtaining expert opinion, the local experience of people, and the general consent of practitioners. Administering primarily involves allocating resources, delegating responsibility, and supervising others. Without getting lost in semantics, it is important to note that, for many, the terms "administration" and "management" are interchangeable. However, the prevailing preference and therefore the one for this report is to use "management" and "manager" to denote the position and person engaging in higher and broader strategic activities, and to have "administration" and "administrator" denote the position and person taking part in the more narrowly focused operational activities entailed with allocating resources, delegating, and supervising.[15] Ensuring information flow is promoting communication and obtaining reliable and timely factual data about the performance of people, programmes, organizations, and policies to judge whether goals and standards have been reached. Budgeting and accounting is estimating for the future the income, cost, and output of resources. Budgeting is a form of planning in which allotted resources are itemized for programmes and organizational units so that these can be accounted for.

Personnel management involves deciding which personnel resources are required, recruiting and selecting people, and designating their job functions through job descriptions. Rewards and disciplinary action are also an important aspect as is strong leadership. Training and developing personnel involves identifying the required education to ensure that people perform up to standard, then designing programmes such as in-service training efforts or coordinating training in universities, and assessing the results in terms of people's development. Monitoring and evaluating is providing day to day oversight of activities as well as more thorough in-depth assessment of people, programmes, and systems. Evaluation for national health development is "the systematic assessment of the relevance, adequacy, progress, efficiency, effectiveness and impact of a health programme."[2] Coordinating is ensuring that the many interdependent activities among the various categories of health workers, at the same and different levels of the health system, are carried out without unnecessary duplication and in ways that are generally considered effective, efficient, and equitable.[2]

Overview of Nurses' Management Responsibilities

At the community and organization level, nurses in managerial positions design the organizational structure of the nursing services designating lines of authority and responsibility. They assist in determining policies that guide everyday practice. They engage in short-term planning activities focused most often on obtaining personnel and information. Nurses at this level usually allocate personnel, designating who will work where. They are responsible, too, for ensuring that people are supervised and trained and that medical records are maintained. With strong technical nursing skills, nurses in lower management positions are able to monitor nursing practice and assess the extent to which it meets the standards that have been set. When well-prepared, they also review budgets for nursing and coordinate the activities of teams of personnel and people in communities.[16]

At the district level, management responsibilities are wider. For the purpose of this report "district" signifies any country division such as a province or state. Well-prepared nurses at this level are involved in determining the structure and policies for a number of units, in planning for longer periods of time, in setting standards for a broader range of personnel and practices, and participating in the development and critique of the budget plan for the nursing and other health services. There is also more coordination of a wider variety of people and functions. Evaluation moves beyond the monitoring of daily individual and unit performance to developing indicators to be used in programme evaluation.[17] It should be noted that in large, heavily-populated countries, management at the community or district level may be comparable to management at the national level in smaller countries.

At the senior national level, nurses need more than technical nursing skill. Strong conceptual skills are also needed, especially for strategic planning, for determining policy, evaluating, and coordinating. There are three basic skills that every responsible manager of the health services must have - technical, leadership, and conceptual.[18] The level of skill for each depends on the level of management. Technical skill for nurse managers is proficiency in the specialized techniques of nursing. Leadership skill is the ability to understand and motivate people, to work effectively in groups, and to build cooperation. Conceptual skill is the ability to see an enterprise as a whole and to coordinate all the many activities towards a common goal. For lower managers, technical skill is the most important. For senior managers, conceptual skill is. Interpersonal or leadership skills are necessary at all levels.[19] Conceptual skill in the health system includes recognizing the major elements in the system, understanding how each depends on the other, and being able to visualize how the health services and community, and political, social, and economic forces are related.

Definition of Leadership

Nurses in the health services must function as leaders. Leadership and management, while not one and the same, nevertheless are closely linked.[20] In 1988, Roemer said that nurses in management should be leaders and that leadership requires, among other things, effective management.[21] Christine Hancock, General Secretary of the Royal College of Nursing in the United Kingdom, observed, "A health service does not simply need management. It also requires leadership and leadership that considers first the needs of customers."[22]

Leadership is moving people in the direction that is genuinely in their best long-term interest.[23] Leadership is therefore defined for this report as moving people, services, and systems towards the health for all strategy. The World Health Organization has described the purpose and skills of leaders in the following terms:

> "Persons in posts of leadership should have a comprehensive grasp of the processes involved in developing and implementing the Global Strategy for Health for All. They should have a concern for social justice, ability to communicate, courage to take risks and make bold decisions, and faith in people's ability to contribute to the improvement of their own health. They should be in a position to motivate others and direct the national health development effort towards health for all."[18]

A basic assumption for this study was first, that all leaders, even those who are not in formal management positions, to some degree, manage the activities of others because of their influence, and second, that effective managers are also leaders because they motivate people, change systems, and create fulfilment by holding people to their part in a common coordinated enterprise.[24] Leadership varies depending on the culture, time, and place.[25] But leaders have more than technical skills. They also have well-developed human and conceptual skills. Leaders are knowledgeable about people and their conduct. They are visionary about the changes that are needed and motivate others to achieve. They build community relations and are trusted. They are able to put their vision into words that others understand.[26] It is interesting to note that in some languages "leader" and "leadership" are the only available terms to denote "manager" and "management."

Overview of Nurses' Leadership Responsibilities

At the community level, leadership by nurses requires an understanding of communities and having good working relationships that go beyond those required in the job. This would include showing concern for people's working conditions and for the living conditions in a community. A good track record and reputation are also needed to engender trust, as are intellectual and interpersonal skills.[27]

Providing leadership in district coordination involves giving people guidance and consultation, teaching workers when referring problems to higher authorities is best, providing training, and helping others understand why reports are necessary. It involves correcting mistakes, giving encouragement and inspiring others to do good work. Any successful leadership depends on the recognition and acceptance of the community.

In senior management positions at the national level, a broad understanding of people, health, and health care is required. National leadership demands a broad set of solid relationships, an excellent reputation, a keen mind, and strong interpersonal skills. In addition, leadership at the national level requires a strong sense of social justice and sufficient judgment to participate actively in determining health policy and formulating legislation in support of the policy.[23]

Nurse Managers and Leaders: Problems, Functions, and Skills

The American statesman, John Gardner, in his analysis of leadership, described Nightingale as a "rugged spirit ... a systems changer ... a formidable authority on the evils to be remedied ... (who) knew what to do about them and ... used public opinion to goad top officials to adopt her agenda."[28] In the present, Dame Nita Barrow, Governor-General of Barbados, is another nurse leader of great stature. Dame Nita recently stated, "managerial or technocratic approaches alone will not get us to our goal ... Primary health care must become a social movement ... and such social movements demand leadership at all levels."[29]

In national ministries, leadership is needed to formulate realistic human resource development plans, to improve working conditions, to reduce the costs of hospital services, and to assist in coordinating the work of governmental and nongovernmental agencies. According to the World Health Organization, the greatest management deficiencies in ministries of health are in personnel administration, budget and finance management, and information systems. Other problems include rigid bureaucratic structures, the less than adequate management training of those in positions of authority, top-heavy administrative frameworks, and the unequal distribution of resources. Joyce Kadandara, Director of Nursing Services in the Ministry of Health, Zimbabwe, discussed the problems of a country organizing its health care infrastructure from scratch. She described limited resources, increasing demand, rising costs, and high rates of personnel turnover. She also discussed inequities noting that nurses carried the heaviest workload and yet were the lowest paid.[31] In her view, the major problems requiring national leadership, were the subservient role of nurses, nurses not being sufficiently assertive, a lack of clear direction in nurses' education, and nurses' lack of academic attainment. Kadandara emphasized nurses' expanding role. She stressed the importance of needs assessment and financial management.

> "The move is towards nurses becoming totally involved in carrying out executive functions at all levels of the health care system in Zimbabwe. Their role on the executive team is not only to look at the health activities per se but to give management support. This entails an in-depth assessment of the needs of their area of responsibility, ranking these needs according to priority, soliciting for funds and expertly handling financial management and control."[32]

Nalini Patel[33] described some of the major problems for the health services in India, namely, the shortage of well prepared nurses and poor personnel management. Few opportunities for promotion, the failure to make appointments to positions, and a lack of incentives are among the main personnel problems. Patel also stated that nurse managers, even those in relatively high positions, are not always involved in planning and determining policy.

The problems of pay inequity, poor working conditions, nurse migration, and changing health systems have been discussed in developing and developed countries in the Americas, Europe, and the Western Pacific. Janice Kopinak[34] at the University of Toronto, Canada, described the problems in a provincial health system and nurses' low salaries. In Hungary, Katalin Mucha[35] and colleagues identified health system problems, particularly that the organizational structures vary greatly in the country's health institutions and some chief nurses lack the formal authority for nursing. Erlinda Ortin[36] Chief Nurse, Training and Education Division, University of the Philippines and Philippine General Hospital, described the "brain drain" of nurses in her country where about 60 percent migrate, primarily to the United States and resource-rich Arab countries. Skillful nursing leadership is needed to analyze and shape the country's labour export policies to ensure an approach that balances national and international requirements. Gillian Biscoe, with the Department of Health, New Zealand, addressed the reorganization of the national health system, strategic planning, and efficiency. According to Biscoe,

> "To rise to the challenge of leadership in health towards the next century requires ... that nurses be strategic, focus on results, encourage and value risk taking, be future oriented, (and) always come from an open systems perspective. And in general always have a mindset of "can do" and not "can't do."[37]

Sally Shaw,[38] a general manager, also at the New Zealand Department of Health, listed several core functions for senior nurse managers: engaging in policy, planning and resource allocation; having responsibility for nursing personnel and industrial relations; and monitoring and evaluating nursing standards. The managerial characteristics that Shaw emphasized for national leadership included creativity; commitment; sound judgment; being decisive and willing to try new things; being tenacious; having experience in service, teaching, and management; and understanding personnel and consumers.

In communities and hospitals, leadership skill is required to improve the quality of administration, personnel management, and budgeting. Nurses are needed who can work locally with community health workers and delegate tasks to other less costly personnel. Helen Awasum,[39] at the University of Yaounde, in her discussion of the health system and nurses' leadership in Cameroon, noted that nurses often delegate direct care to lesser trained workers without carefully matching people's needs and workers' competencies. She reiterated the importance of nurses orienting their leadership to primary health care to ensure that manpower development and coordination of health activities are population-based.

Education, Research, and Theory for Nurses' Leadership and Management

To ensure that nurses have the required skills to address the problems in health systems and to plan and implement countries' health activities, improved academic and on-the-job training is needed. Ohlson and Franklin[40] in a landmark report on international nursing emphasized population-based nursing education and the importance of preparing nurses for leadership and management. Basic education is necessary to ensure that nurses understand how to encourage community participation and enhance the performance of local health workers. Training in basic administration and leadership is required to ensure that nurses at lower management leadership levels in hospitals plan for small groups of co-workers and supervise teams of auxiliary workers.[41] Advanced management education is needed at the post-basic and university levels for nurses who will move to senior positions. These programmes should be comprehensive, based on sound theoretical and empirical bases, and yet also practical.[42] In a study of senior nurse managers in Norway, the greatest demands were balancing resources, setting goals and planning, and keeping on top of a large set of activities. A major recommendation for the future education of nurse managers was to draw on knowledge in nursing, organization science, health care finance, information science, and personnel management.[43]

Mary Jane Seivwright[44] of Jamaica, provided a helpful road map describing how to develop nurses as leaders. She listed ten knowledge and skill areas for basic nursing education. These were health assessment, clinical nursing, holistic care, basic management, research and epidemiology, leadership, community organization and mobilization, primary health care, macro and micro planning, and policy-making. In her perspective, future leadership requires people who have a well-rounded general academic education, are committed to serving others, are self confident, display good communication and interpersonal skills, and are oriented to group and community action.

The recommended subject content in the United States for nurses' studying management includes motivation, leadership, communication, change, conflict, employee appraisal, delegation, staffing and assigning personnel, and group dynamics.[45] The recommended content for nurses' middle level management in university masters level programmes includes health systems, research methods, health policy, budgeting and health care finance, personnel management, organizational behaviour, and ethics.[46] Wagner[47] and colleagues did an analysis of nursing management education in the United States to describe the curriculum content, programme structure, and instructional placement. An increasing emphasis on information systems was found but there was almost no mention of international health. Multidisciplinary studies and practicum experiences for students were recommended. For doctoral

education, content focusing on national health systems, health economics, personnel administration, research methods, and public policy analysis are recommended.

Ruth Harnar[48] and colleagues at Aga Khan University analyzed the problems for nursing in Pakistan including the nursing shortage, the image of nursing as a menial occupation, and the role of Pakistani women. In addition to the difficulties in recruiting nursing students, the general educational backgrounds of students are often poor. The lack of faculty and facilities is also a problem. However, staff development programmes have helped nurses to pursue higher education in Canada and Wales. Management teams have also been developed in some of the health services and attempts are being made to bring nursing and medical students together in classes and field experiences.

One criterion for judging a country's progress in health care is the extent to which curricula are adapted to the country's health needs and primary health care. An exemplary programme to prepare nurse managers is the interdisciplinary one at the University of Kuopio, Finland where nursing practice, management, and health policy are integrated.[49] Robinson[50-51] and colleagues in the United Kingdom provided several analyses of national health policy and the implications of these for nursing. Jean Nagelkerk[52] and David Warner [53] in the United States discussed policy research and nurses' leadership.

Judith Clift[54] described nursing and the health services in Austria and the effort to move nursing education to the university. Health needs; the operating systems of health, education, and government; and the level of nursing practice, are all factors in institutionalizing higher education for nurses.

In 1988, Roemer[3] recommended that a broad professional doctorate in the management of health systems should be developed, built on a basic foundation of professional nursing education. The goal of the doctorate would be to prepare leaders with knowledge about health problems, health promotion, and the health services. The four fields of knowledge were:

1) basic tools of social analysis
2) health and disease in populations
3) promotion of health and prevention of disease
4) health care systems and their management.

Several of the subjects, in the category of "Basic tools of social analysis," included population and demography, biostatistical techniques, population sampling and surveys, programme evaluation, political science of health systems, and principles of health economics. Subjects for "Health care systems and their management" included national health care systems; workforce development; population-based health planning; budgeting, cost controls and financial administration; health legislation and ethics; comparative international health systems; health systems research; and records and information programmes.

Information systems have been especially emphasized for nursing management education and research in the United States and Europe.[55,56] Priority research topics and methods in regard to health information have been described by the European Regional Office of the World Health Organization in the following statement:

> Because adequate information is a prerequisite for making decisions on health policy and for evaluating the existing health system and any structural changes in it, studies are urgently needed to determine the gaps in the information needed ... The next task for research is to build up more detailed and comprehensive information systems ...[57]

Grobe in the United States recommended that education and research is needed in nursing management to improve understanding of how data and information can contribute to solving problems and how information should be processed. "Nursing informatics is the application of the principles of information science and theory in the study, scientific analysis, and management of nursing information for purposes of establishing a body of nursing knowledge."[58] Taking an informatics approach to the

development of a knowledge base for nursing management, Heyden[59] is developing a lexicon and taxonomy of terms as a basis for the development of future theory and research.

Nursing management research can best be understood in the context of health systems, health services, and nursing research. Health systems research focuses on the entire system or a part of it.[2] Health services research deals with the health services component of the broader health system.[2] Nursing research addresses people's health needs for nursing care and the results of nursing interventions. For this report, nursing management research is scientific work that focuses on the nursing service component of the health services and system and its effect on people's nursing needs and nursing care. Henry and colleagues, using national interdisciplinary panels in the United States, defined nursing management research as:

> "concerned with establishing the cost of nursing care, with examining the relationships between nursing services and quality patient care, and with viewing problems of nursing services delivery within the broader context of policy analysis and delivery of health care services."[60]

An analysis of nursing management research in the United States by Hermansdorfer[61] and colleagues showed that the problems most frequently addressed were evaluation of care, job satisfaction, nursing productivity, interorganizational relations, and patient acuity. Nearly half the studies were cross-sectional and descriptive. The theories used most often were motivation, role, decision making, leadership, communication, and conflict. An analysis of nursing management studies conducted in countries located in all world regions found that the main themes pertained largely to personnel management. Cost-benefit or cost effectiveness analyses were not found and few studies involved people in communities. Three-fourths of the studies were exploratory or descriptive and several were programme evaluations.[62]

A programme evaluation conducted in Nigeria[63] by a team of nurse researchers from Nigeria, Switzerland, and the United States was undertaken to assess the effectiveness of a primary health care project. The study demonstrated that nurses can plan, implement, and evaluate a project for primary health care with comparatively few resources. Una Reid[64] described a useful economic model for nurse manpower development in the Commonwealth Caribbean. Jung-Ho Park[65] at Seoul National University, Republic of Korea described how research is integrated in the nursing curriculum. Park also discussed the university's course content for nursing leadership. These included administration, professional adjustment, and leadership.

* * *

In summary, it is widely held that nurses' management and leadership is required in the health services but that these should be strengthened to assure that nurses assume their share of the responsibility for overcoming the seemingly intractable problems that stand in the way of achieving health for all. Leaders and managers are needed who can motivate and stimulate the required changes including those involving new regulation and legislation and to reorient nursing practice, education, and research. Judging from the literature, some progress in preparing nurses for their management responsibilities has been made. However, health systems and the health services cannot be effective without nurses' fuller participation at every level, including the national. A purpose of this study was to provide direction for future activities designed to strengthen the nursing potential.

SECTION 2

Methodology and Participants

The study was broad and general. The goal was to understand some of the key variables in sufficient depth that generalizations could be made about the differences and similarities in nurses' management and leadership in a variety of contexts.

Method

The study was an exploratory survey using a mailed, self-administered, 15-item questionnaire with open and "Yes/No" questions. The questionnaire was sent to selected nurses in leadership and management positions in Member countries of the World Health Organization's six regions. These countries belong to four development groupings.

Pre-Study Procedure

In February 1990, a preliminary version of the questionnaire was sent to the 1988 conference contributors and to ten other experts who were asked to critique its clarity and content. They were asked to nominate individuals with the expertise required to complete the questionnaire. The final version of the questionnaire is found in Annex B.

Sample

A sample list of prominent nurses, physicians, managers, and public health specialists in countries in the six WHO regions was drawn up. To be included, a nominee met at least two of the following five criteria. He or she was:

1) A manager of a nation's leading health care institution such as a university school, hospital, or primary health care unit
2) Employed as an educator or researcher and instrumental, at least at the national level, for improving knowledge of the management of health services
3) Identified as an expert by WHO for consultation or leadership
4) Published in international journals
5) Involved in a national leadership capacity.

In many countries it was difficult to identify individuals, especially outside nursing, who were well-versed about nurses' management, could read and write English, and were willing to take the time to share their ideas. Therefore, the sample was obtained using non-probability selection. It was decided to gather explorative information and then exercise all due caution when making inferences. The investigators made the final decisions about participant selection to achieve adequate representation using the criteria, and the distribution of nominees by professional field, country, region, and development grouping.

The observational unit of analysis for data collection was individuals describing nursing management, education, and research in their countries from the fields of nursing, medicine, management, and public health. These are the fields where people are usually most knowledgeable about the health services and nurses' management activities. A consistent attempt was made to identify potential participants outside nursing and to have these individuals account for one-fourth of the final sample. The explanatory units of comparison were regional and country groupings. The six WHO regions are Africa, the Americas, the Eastern Mediterranean, Europe, South East Asia, and the Western Pacific.

The four country groupings were: least developed, developing, Eastern Europe, and developed. The investigators sought to include participants proportionate to a region's and group's number of countries and population. But problems arose where a high number of nominees could not be identified for countries with large populations, for example the Russian Federation and China. English language competency was also problematic as an inclusion criterion, especially for the developing countries of South America and for Francophone Africa.

Participants

Of the 330 people invited to participate from 119 of the 167 WHO Member States, 172 (52%) from 76 countries responded with usable questionnaires. For an international study with a heavy respondent burden and open questions, 52% was judged as a better than average rate of return. The primary professional field and the distribution of the 172 participants by their field was nursing (n=137), management (n=16), public health (n=13), and medicine (n=6). Nurses were a substantial majority for all regions. The primary roles of the respondents were administrator (n=73), educator (n=70), government official (n=16), researcher (n=11), and roles obtained by election (n=2).

The distribution of the respondents by their country and the six WHO Regions was: Africa, 21 respondents from 17 of 45 countries; Americas, 21 from 12 of 34 countries; Eastern Mediterranean, 10 from 8 of 23 countries; Europe, 62 from 24 of 34 countries; South East Asia, 33 from 7 of 11 countries; and Western Pacific, 25 from 8 of 20 countries. The largest number of participants was from the European region which is the third most populous of the six regions. The fewest were from the least populous Eastern Mediterranean region. More detailed information showing countries involved and participant distribution by field, role, country, region, and development grouping are in Annex C.

The distribution of the 172 participants by their countries' grouping was: least developed, 17 from 15 of 41 countries; developing, 82 from 34 of 90 countries; Eastern Europe, 4 from 3 of 9 countries; and developed, 69 from 24 of 27 countries. At the time of the study, the World Health Organization unofficially classified 131 of its 167 Member States as developing countries.[66] The groupings are based on social, economic, and political indicators. Therefore, the designations are not static, and there are wide variations within each grouping just as there is regional variability.

Data Analysis and Validity

Data were entered manually and through optical scanning into computerized data files by survey item and professional field, country, region, and development group. An initial analysis to discover patterns and relationships was carried out by the three investigators working separately and then together. This was validated by an independent expert. The responses were categorized separately and together to reach 90% inter-rater agreement about the analysis. Throughout, the goal was to describe the data using the most logical categories for each of the survey items. Where forced choice "Yes/No" responses were obtained, the numbers in each category were summed by region and development group. For narrative responses, logical categories were sought in the data, for example, the first question asked about the senior leadership positions for nursing in a country's organizations, communities, districts, and national government. Categories of positions were developed by world region and group showing the kind of positions as described by respondents, in organizations, communities, districts, and at the national level. Another question asked how nurses were involved in planning and policy-making at the community and national levels. For this, responses were categorized as planning in communities, planning at the national level, policy-making at the community level, and policy-making at the national level. Some of the categories used to structure the content in the 1988 work were also used as a logical common framework. For example, Roemer's categories of knowledge were used to cluster the education subjects, as were the five types of research. With respect to the regional and development groups, usually only one or the other of these analyses was selected for presentation to keep the report a reasonable length. Participants' narrative responses were selected for inclusion to improve the study's semantical validity from the content analysis, and were selected for region and groups that 1) represented the array of concerns in the data, 2) summarized some of the most frequently expressed ideas, or 3) addressed a unique idea that few others had mentioned.

To further enhance validity, a preliminary copy of the study report was mailed to all participants for their judgment and feedback. A review form asked for 12 "Yes" or "No" responses with comments about the clarity, logic, completeness, or correctness of the major elements in the report. Two open questions asked about the report's strengths and weaknesses. Additional suggestions to improve the validity and usefulness of the report were sought in a final item. A total of 76 (44%) reviews were returned by March 1992. This response rate (which was judged reasonable for the time-intensive evaluation) and the overall positive feedback, precluded follow-up of non-respondents. The recommended changes were made in the report as appropriate.

Study Strengths and Limitations

The practical and scientific need for comparative international nursing research is great. From a practical point of view, nurses move among countries and regions. Economic upheavals in one part of the world have an impact on the health needs and services of people in other parts. The globalization of health problems and scarce resources makes the need for comparisons a social, economic, and political reality. Moreover, broad comparative sweeps are appropriate for fields at the first stage of scientific development, which is the case for nursing.[67] A strength of this comparative international study is that a number of patterns and several major variations were identified. Many studies described as international deal primarily with developed countries, whereas countries from all world regions and levels of development were included in this project.

The investigators are aware of the many problems in doing international work, they realize that comparative studies are different from other research and therefore chose of necessity not to be paralyzed by the requirements for conceptual equivalence and experimental control. Judgments and compromises were consciously made believing that this exploratory effort could provide useful, new insights. Theoretical foundations to extend the scope of knowledge are needed in nursing based on comparisons that show patterns and relationships. A goal in the study was to begin to discern patterns of nurses' managerial activity, responsibility, and skill and the relationship of these primarily to the required education at three levels. For the ease of comparison, generally three geographic and three educational designations were used. These were community (and organization), district, and nation; and basic, post-basic, and university. It should also be noted that in some countries post-basic nursing education is in universities. For ease of comparison, post-basic education was equated to intermediate or masters level university education, and high-level university education to the doctoral level.

Cautious and conservative approaches were taken throughout the analysis because of the study limitations. Although criteria for inclusion in the network sample were used, the results are not representative of nurse leaders and managers globally and over time. Second, the survey was written in English and the burden on respondents to read the chapter and respond to open questions was heavy. But by having respondents read and react to a single document, a common frame of reference was provided and this was a strength. However, in the process, participants may have been biased by the terms, the way they were used, and the main emphasis. Third, countries in the groupings, although having some features in common, are by no means homogeneous. The groupings were used as logical and convenient categories to facilitate the comparisons.

A final word should be added about the terminological difficulty with "management" and "administration." As noted, the two terms are sometimes used interchangeably not only by lay people and practitioners, but also in scholarly fields. In the field of public administration, for example, the difference between the terms is acknowledged as imprecise. The reasons for the differences are generally unknown beyond personal preference. In some countries, "management" denotes high-level functions, for example, in the United Kingdom. While in others, for example, in the United States, "administration" is used to signify higher level functions and "management" the lower or more operational ones. For nursing in the United States, the term "nursing administration" continues to denote higher level executive functioning, and "nursing management" is used as a more limiting concept to describe lower level activities. The International Council of Nurses defines "nurse managers" in yet another way, as those who are responsible for the standards of nursing practice. "Nurses in general health management" denotes those who move beyond nursing into general health management.[68]

To resolve some of the confusion with the different usage of these terms, "management" and "administration" in this report have been used as defined by the World Health Organization. Nurse manager refers to all nurses in managerial positions at the lower (organization, community), middle (district), and senior (national) levels. The term denotes those who manage the nursing services as well as those who have a broader range of health service responsibility. The authors tried to be consistent in the use of these terms throughout.

Organization of the Report

The study findings are described in four sections: *Sections 3 through 6.* In each of these, the findings are analyzed using the following study questions to guide the presentation.

Section 3. What are the senior leadership positions in nursing and what are the main functions? What are the characteristics of nurse leaders? How are nurses at various levels involved in planning and policy?

Section 4. What are the major problems for nurses in management positions? What actions are suggested to overcome these?

Section 5. What is the nature of basic, post-basic, and university education for nurses' management and how can it be enhanced?

Section 6. How are nurses trained for research? What are the high priority research topics and methodologies? What are the recommendations to improve nursing management research? What theories may be most useful in guiding developments in nursing management?

A major question was: How do the problems, functions, and education for nurse managers compare throughout the world? That is, how are they different and how are they similar? Therefore, in *Sections 3 through 6*, the findings are presented and analyzed, for the most part, by comparing responses from region or country groups. In each section, a number of patterns are highlighted and the presentation closes with a summary of the main findings.

In the final *Section 7*, inferences are drawn, conclusions are reached, and recommendations are made. Throughout, the major themes are related to the functions of nurse managers as well as to the complexity of the problems they face in health systems.

SECTION 3

Nurses in Leadership and Management

Participants first described the senior leadership positions for nurses in the organizations, communities, districts, and national governments of their countries. Next, they indicated if there was a chief nursing officer in the national department or ministry of health, and if so, they described the main functions. Two final questions concerned the characteristics of nurses in leadership positions and nurses' involvement in planning and policy-making.

Nurses' Senior Leadership Positions

Examples of positions in organizations included senior staff nurse, charge nurse, head nurse, nurse supervisor, chief nurse, member hospital board of trustees, director of school of nursing, and nurse teacher or tutor. Examples of positions in communities included community health centre nursing officer, community chief nurse, community nurse inspector, director for primary health care, community chair of rural management board, and director, home health care nursing. Positions in districts included member of district health team, district nursing officer, district senior health visitor, chief nurse regional sector, policy advisor for the provincial ministry of health, and state nursing officer. Examples of positions in national governments included chief nursing officer in the ministry of health, national health board nurse, director general of nursing, assistant surgeon general, controller of examination board, director of primary health care, director for human resources, manager for training, nursing research director, deputy president of the trade union for health service workers, and national planning board nurse. Other positions included president of national and state nurses' associations, president of nursing education associations, and editor of professional journals.

Several differences in positions were apparent for the least developed and developing countries as compared to the developed and Eastern European countries. The first was the higher frequency with which nurse supervisor, head nurse, charge nurse, and staff nurse were mentioned in the former, but less so in the latter. Moreover, for the least developed countries it appeared that although many may have a nurse in the ministry of health, there are comparatively few other nurses in positions of national leadership. A second difference pertained to the more frequent mention of senior leadership positions for primary health care in the developing countries. Third, political restructuring activities were described in Eastern European countries, as was nurses' leadership in trade unions. Fourth, the problem of nurses in advisory positions, rather than in positions with formal line authority, was addressed by some respondents from developing countries but more often by those from the developed.

Functions of Chief Nurses in National Ministries.

A chief nursing officer in the national government was described by participants from 60 of the 76 countries. In the least developed countries, the functions of administrator, personnel manager, trainer, and coordinator were described most often. Mentioned less often were determining organization structure, policy, standards, information flow, and budget. Reports of planning functions usually focused on personnel. Some mention was made of planning for nursing practice and education and for the training of local women. Administrative functions included allocating financial and human resources for the nursing services, delivering diplomas and licences, conducting interviews, and supervising subordinates. Although determining policy was mentioned less often, occasional comments related to monitoring legislation and representing the ministry to nurses and nurses to the ministry.

In the developing countries, a greater variety of functions was described. Determining the organizational structure of health services was mentioned by several. Involvement with determining policy was discussed by some as understanding the view of the nation about health, developing legislation, and formulating health programmes. Planning functions most often pertained to nursing

personnel, health programmes, nursing practice, and nursing education. Although little specific mention was of budgeting, an occasional person described the importance of understanding cost effectiveness and the quality of care. Understanding norms and setting standards was mentioned by several as were the functions of compiling statistical data and managing personnel recruitment and deployment. Comparatively few comments were made on functions related to information flow, evaluation, and coordination.

For the Eastern European countries, the functions mentioned most often for nurses in national ministries pertained to planning for the nursing workforce, nursing education, and personnel development. Several comments also described developing and submitting proposals to the ministry and ensuring nurses' participation in health for all policies. Setting standards was mentioned, as was monitoring the quality of nursing services and education. Evaluation functions were discussed in terms of assessing the health service experience of other countries for comparative purposes. The functions discussed least often were determining organization structure, ensuring information flow, budgeting, and coordinating.

From the developed countries, the function of determining organizational structure, although rarely mentioned, was discussed by several in terms of developing nursing services for primary health care. Several also mentioned determining policies, developing projects, providing expert advice, and lobbying for health care legislation. Planning functions pertained to the organization of a health service, nursing personnel, nursing research and education, and to international relations within Europe. Setting standards was mentioned, as were the administrative functions of personnel supervision. Information flow was discussed primarily in terms of publishing to disseminate information. Functions related to budgeting and accounting were not found. Several coordinating functions were described, including that of councils to provide national advisement, and linking regional and national levels of the health services.

Characteristics of Successful Nurse Leaders

Respondents were asked to describe the characteristics of nurse leaders that contribute to their success in the operation of institutions and determining health care policy. The characteristics mentioned most often by those from the African Region were "educated" and "highly experienced" as nurses and managers and being "committed." Strong communication and interpersonal skills were mentioned next most frequently. Several respondents mentioned being well-connected, assertive, ambitious, and charismatic. Other characteristics included being respectful, patient, positive, creative, diplomatic, and actively involved in the national nurses' association or community. This comment was made about diplomacy and the role of women:

> "Due to the subservience of women in this country, they are extremely diplomatic and do a great deal of personal lobbying to prevent open confrontation."

Characteristics that pertained more to the operation of institutions included being qualified to organize seminars, assuming responsibility in the absence of doctors, and being qualified as a nurse or midwife. Characteristics that pertained more to determining policy included being informed about health policy, health structures, and nursing throughout the world; having political skills to negotiate and lobby; and engaging in network building activities.

Being educated and knowledgeable about nursing and management was mentioned most often by nearly all respondents in the American Region. Respondents from more than half the countries discussed masters or doctoral level education. The fields for the degrees were nursing, public health, and management. Having extensive networks and political connections were characteristics described second most often by more than half of the participants, as was being intelligent, articulate, and clear. Although native intelligence and academic preparation at the masters or doctoral level were widely endorsed, several made comments such as:

> Unfortunately compliance and subservience are essential for formal hierarchical promotion and position security. This often results in the exploitation of nurses ... with the end result of inadequate

> and unequal provision of health services and an emphasis on curative approaches with minimal attention to preventative or ameliorative services.

Other characteristics mentioned at least once included commitment, being respectful, honest, visionary, energetic, and personable. On the importance of information systems for determining health policy, one person indicated:

> Still lacking to a large degree is the recognition that nursing contributes little towards policy development without seeing to it that nursing care and resources are documented, computerized, and readily retrievable on an ongoing basis so health policy can be influenced.

The characteristic skills that pertained more to the operation of institutions included having technical and scientific confidence and being able to work with multidisciplinary groups. The characteristics relating more to determining policy included being able to obtain information about health policy and the macro-system; being involved in top-level health policy planning, budgeting, and evaluation; and being visionary and active nationally in professional associations in a variety of fields.

Being educated was also mentioned most often by those from the Eastern Mediterranean Region. But respondents from three countries expressed these concerns:

> There are no defined characteristics to Ministry of Health policy makers. Nurses are helpers for doctors.

> A problem is limited educational preparation. The majority were appointed to their positions through seniority, their education does not exceed a diploma degree in nursing.

> The status of nursing in the country is low. Even those in top positions have not been able to win respect, in general. The leadership posts that have been filled have older nurses who have not had the opportunity to keep abreast of developments.

Several of the characteristics mentioned at least once included being decisive, assertive, able to negotiate, plan, and build networks. The characteristics that pertained more to operations included being able to deal with both diploma and baccalaureate nurses, having experience in nursing and management, and leading the health care team. Characteristics that related more to policy included being able to bargain, and having a sound knowledge of nursing in the country, and acting as a national and international spokesperson for nursing.

Being educated and prepared for leadership was the characteristic mentioned by more than one-third of those from the European Region. Although higher post-basic and university education was referred to frequently, masters level preparation was mentioned by participants from only one-fifth of the countries and doctoral education by the respondents from three. One person in the field of management made the following comments about the characteristics of nurses' education.

> Previously nurse leaders' education concentrated on the micro level of management (personnel management, etc.). It did not include the scientific basis of nursing or a macro level health policy orientation. Therefore, our nurse leaders lack the knowledge, skills, and attitudes to really "lead" nursing and to influence health policy making in any significant way. Nurse leaders are very much withdrawn from policy making at all levels.

Building and maintaining wide networks to provide resources was mentioned second most frequently. Being competent in nursing and management, having political connections, and strong communication skills were also described. Being able to bargain and negotiate, being creative, open, and having vision were each mentioned by at least four respondents. Other characteristics identified by one or more included decisiveness, commitment, optimism, persistence, and adaptability. Stamina, common sense, patience, integrity, intelligence, diplomacy and respect were also mentioned. A few described their

concern about the relatively little emphasis on primary health care. One from the field of management said:

> The few nursing leaders I am thinking of are open minded, have been in other countries, are involved in professional associations ... But most of them are too much hospital oriented.

Commenting on nurse-doctor relations and medical delegation, another said:

> Nurse leaders in general are doing fairly well. However, there is a lack of willingness on the part of physicians to delegate to other professions and a clear tendency to recapture the leadership once taken by nurses.

The most frequently mentioned characteristics by those from the European Region, related more to the operation of institutions, included implementing new management approaches and being able to adapt to new organizational structures. Those pertaining more to policy included having broad power bases, being internationally active, and advising national ministries.

As for all other regions, nurse leaders were described by at least half the participants from the South-East Asia Region as being more highly educated than others. Masters and doctoral level education was described by those from three of the seven countries. But the problems with nursing education were apparent from the following:

> Their status is much below their counterparts in medicine. Their knowledge and experience in nursing contribute to their success but their low position is a hindrance. At the state level there is no uniform pattern of qualification for these positions. Their low rank and inadequate educational preparation adversely affects their functioning.

Experience in nursing and commitment and devotion were mentioned by nearly half the respondents. The importance of strong interpersonal skills and networks was discussed by several, as were high socioeconomic status, creativity, openness, decisiveness, optimism, and the ability to communicate and collaborate with people in other disciplines. The characteristics relating more to operations included taking daily responsibility. Those pertaining more to determining policy included being able to link higher authorities and organizations and having plans to strengthen the nursing component of the health services.

Being well-educated and knowledgeable were the characteristics mentioned most frequently by nearly half the respondents from the Western Pacific Region. Advanced university education was described by people from seven of the eight countries. Nursing and management experience, intelligence, communication skills, and commitment were mentioned with equal frequency. Morality and faith, optimism, being energetic and well connected socially were each mentioned by several. A participant from the field of management added: "Breadth of vision and awareness of the legitimacy of claims of all health professions" as a characteristic. The characteristics pertaining more to daily operations included structuring organizations, hiring qualified people, and using nursing modalities that fit with the organizational philosophy. Those pertaining more to determining health policy included setting the goals for nursing in the context of the national health plan and cooperating with others with high-level responsibility for health policy.

Nurses' Involvement in Planning and Policy-Making

When asked how nurses were involved in planning and policy-making for health services at the community and national levels, participants from about one-third of the least developed countries described little or no activity. Some said that nurses were involved, but only indirectly. One stated:

> Nurses participate indirectly in the planning and policy-making for health services by filling out forms for the Ministry of Health which carries out data collection from time to time at the community level. But they usually don't know how this information is used. Nurses are, however, never involved at

the highest level of planning since there is no important position available to them at the Ministry of Health.

However, one person said, "At the national level, nurses in special programmes plan along side other members, doctors primarily." And another commented, "The Chief Nursing Officer participates fully at the central level to unify plans and prioritize activities." Community planning activities included working with local and district health teams. National planning activities were for the schools of nursing and for evaluation of primary health care. Policy-making in communities entailed filling out reports for the ministry of health and being involved with political parties. Policy activities at the national level included participation on policy-making committees, drafting curricula and nursing regulations, and conceptualizing the standards for the quality of nursing services.

From the developing countries, one-fourth of the respondents discussed the involvement of a few highly placed nurses, the activities of national nurses' associations, and nurses' work with local health committees. But those from seven countries reported little or no involvement by nurses in planning and policy-making and two described the following:

> Only the nurses at the Ministry and in the provincial services are often invited by the medical doctors and civil administration to participate in formulating policy for health. They are indirectly involved because their bosses often solicit their opinions which may or may not be retained.

> Nurses at the community level are always consulted and take part in the technical aspects of planning and decision making. Those at the regional and national level continue to be involved in technical work and participate more in interdisciplinary groups which have less decision making power with respect to nursing but are more political in nature. The administrative structure of health services is rigid and government budgetary problems have prevented an increase in job positions. Consequently, there is little personnel rotation and limited innovation in the health services.

Community planning activities included working with local people for primary health care and serving as members of community health development committees. When developing policies in communities, nurses collect and analyze data and serve as members of district executive committees. At the national level, nurses are involved with planning and evaluating health care programmes. For national policy-making, nurses in some developing countries serve as consultants to the ministry of health and as members of health boards, national health councils, and nursing standards committees.

Two responses from Eastern Europe were:

> Regretfully until now they have always been neglected and their problems have been dealt with by managerial staff - physicians, pharmacists, economists, who have not been familiar with the specifics of our profession.

> Our country is undergoing deep changes. In order to meet its requirements, nursing badly needs well-prepared leaders for planning and policy-making for health and nursing services.

The participants from Eastern Europe reported that nurses were involved with planning committees in communities depending more on their personalities and skill than by official designation. A reason given for the limited contribution of nurses to planning was in terms of their "unfamiliarity with planning techniques."

Respondents from one-fourth of the developed countries reported that there was almost no participation by nurses in planning and policy activities especially at the national level. Those reporting little or no involvement made comments similar to this.

> No nurses are involved in planning. The whole area of strategic planning is very underdeveloped. The national health policy council, which is to ensure that the several authorities that render health services shall take all measures to promote health ... is made up of white, male doctors.

People from nine developed countries described a moderate amount of involvement and those from three described a fairly substantial amount, including nurses' election to national political offices and providing lobbyists to monitor legislation. Involvement in community level planning is through membership on senior management committees, hospital boards, and with community and city councils. Involvement in community policy-making is through committee memberships, as civil servants, members of political parties, and trade unions. Nurses are involved in national planning and policy making as advisors to elected and appointed government officials, as managers in national health ministries, and as consultants to national boards.

* * *

In summary, for the 76 countries, 60 have nurses in the national ministry of health. Examples of positions in national governments include chief nursing officer, national health board member, controller of the examination board, nursing research director, and director of primary health care. Even though there are more chief nursing officers in the national ministries in the least developed countries, fewer senior leadership positions overall were described than for the developed countries. Variations were also noted with respect to the main functions of the chief nursing officer. In the least developed and developing countries, the functions of administrator, personnel manager, and trainer were more apparent. In the developing countries, a greater variety of functions was described including those to set standards and to budget. For the Eastern European and developed countries, the functions mentioned most often included planning, setting standards, providing supervision, managing personnel, training, monitoring and coordinating. The functions mentioned least often were determining policy, ensuring information flow, budgeting and accounting, and evaluating.

A summary of the key characteristics of nurses in leadership positions that contribute to their success in operating institutions and determining health care policy is as follows:

Education	In nursing and management, especially at the post-basic and university level
Experience	In nursing and management; with local, regional, and national governments and political groups; with national nurses' associations and international groups
Skills	In planning, policy-making, budgeting, and financing
Characteristics	Decisive, assertive, diplomatic, respectful, creative, trusting, trust-worthy, energetic, enthusiastic, optimistic, ambitious, committed, charismatic; able to negotiate, communicate, work collaboratively with those in other disciplines as well as with nurses; build networks.
Connections	To political and governmental officials, influential families, those of a high socioeconomic status, to resources, to other disciplines.

The involvement of nurses in planning health activities is fairly substantial in some communities and organizations. But generally nurses are much less involved in planning and determining health policy at national levels. A fairly common problem for nurses in national positions of leadership in ministries of health is serving in an advisory capacity only, without line authority, and being only occasionally involved in major managerial activities. This dilemma, in part, derives from nurses not being adequately prepared for senior management and leadership and the poorly structured and managed health systems in many countries.

SECTION 4

Management of Health Services by Nurses

Participants were next asked to describe the major problems for nurses in management. Suggested action to overcome the problems were also sought.

Major Problems for Nurses in Management

The five problems described in 1988 were:

1) the shortage of nurses
2) the inadequacy of information and support systems
3) the few models of collaborative practice and education
4) a near absence of epidemiologic approaches in nursing management
5) nurses' limited participation in planning.

The two problems mentioned most often in 1990-1991 from least developed countries were the shortage of nurses and the shortage of well-educated nurse managers. The following are several comments about both these problems.

> Basically there are no nurses at present who are prepared to work in nursing administration.

> In all the countries of my experience, shortage of nurses is definitely a problem. I believe there are specific reasons for the shortage: people are not attracted to nursing because of the poor working conditions, and the little chance of career advancement.

Other concerns from the least developed countries are apparent in the following statements.

> There is no relationship between practice and education. Our nursing curriculum is not relevant to primary health care. Nurses are not involved enough in health management.

> Very few nurse administrators are aware of the importance of assessing organizational and community need or of being able to analyse the systems that are already in place. They pay little or no attention to health policy formation, to the resources needed to implement policies, and to the costs of services.

> There is a lack of authority due to the lack of administrative structures. Because of the lack of administrative structures, planning cannot be done at the division level in the Ministry of Health, thus resulting in enormous problems encountered at the level of services.

Added difficulties included strained relationships between nurses and physicians, the lack of information systems, and nurses' conflicts with auxiliary personnel.

For the developing countries, the major problems cited by more than one-third included the shortage of nurses, nurses' limited knowledge of management, and the limited participation of nurses in planning and policy activities. One commented that shortages constituted a "... critical problem in the area of primary health care and ambulatory programmes where positions have not been created on a par with those in hospitals." A nurse from a developing country in the Eastern Mediterranean Region stated:

> "There is a shortage of nurses especially because of its being an unwanted profession and migration to Arab countries where better conditions are found."

Describing the cultural problems for women, migration, and political instability, another commented, "The nurses are not working due to the cultural restrictions on women." Respondents from several of the

developing countries described the shortage of nurses, not only in terms of the number of nurses but also in terms of the number and distribution of available positions. Comments were also made about nurses' limited participation in decision-making and their managerial skills. Two said, "In the political aspect, there are no nurses in authoritative positions for the planning of health care," and, "Most nurse leaders, apart from their basic professional training, have not been prepared for the positions they hold." Other problems included nurses being subordinate to doctors, the poor image and low status of nursing, poor working conditions, and excessive work-loads. A number of people also mentioned the problems related to unstable national governments. With respect to political instability, one said:

> The insurgency problem which our government has been trying to meet still poses a big problem for nurse administrators. There are only a few takers of nursing jobs in certain rural and urban depressed areas.

In developed countries, a shortage of nurses was reported most often. Comparing the responses from all countries for educators and managers, the nursing shortage was mentioned by half the managers and only slightly fewer educators. Representative comments describing some of the key local and national factors in the shortage, included the following:

> There is an important shortage of nurses and as a consequence the multiplication of auxiliaries not always well-educated, especially for the care of the elderly.
>
> A major shortage is in hospitals. We need a minimum of 30 new nurses for each hospital. Units have been closed for up to four years due to the shortage. Community health has major problems to fill available positions due to the needs of hospitals.
>
> One of the major problems in my country is the shortage of nurses. There are two main factors related to the problem: a decreasing birth cohort since the 1970s, and recently, fewer people who choose nursing at age 18 ... more and more intelligent young girls choose the university and medicine, psychology, dentistry, pharmacy instead of nursing. Nursing is not even in the competition because there is no masters degree in nursing.
>
> Shortage of qualified nurses will force us to take "everybody" into employment by public intervention, the present standard cannot be maintained. The nurses have the image of not being professionals. The candidates we need in nursing are fewer.
>
> The shortage of nurses depends on the lack of capacity of nursing schools to train more students. We have a large group of low-educated nurses with general schooling and basic training and a high range of age.

The next most frequently mentioned problems for the developed countries pertained to the poor image and low status of nursing, low salaries for nurses, weak information systems, and limited collaboration with physicians. Representative comments describing the nuances of these problems are as follows.

> The image of nursing is as a low status vocation and a typical female vocation.
>
> A lack of collaborative practice between physicians and nurses is due to the differences in educational preparation, image differences, and an unwillingness of the medical staff to give due credit, monetary and otherwise, to the nurse.
>
> The lack of solid data on people's need for nursing care and the effect of nursing interventions makes standard-setting and decision-making difficult.
>
> The crucial problem in hospital settings is the inability by the nursing service director or her associates to interpret the available data - whether they are the results of audits, or costing the nursing services - and to make a strong case for her requests for more resources and justifying these. The majority of nursing directors have a maximum of a masters degree and don't remember a thing about statistics, to interpret the findings.

The problems mentioned by several respondents from the developed countries related to poor working conditions, the little emphasis on primary health care, and the few population-based approaches. One person noted, "The integration of nursing and public health has not been very successful and continues to be debated nationally." The need for management knowledge and skill in nursing was mentioned somewhat less frequently. However, participants from several countries indicated:

> There is a lack of business administration skills, a lack of educational background. Nurses in management must contend with labour relations issues and manpower needs. Some get ambitious action positions without the proper training.

> There is a low level of general education and nursing is excluded from the general education system. Therefore few young and middle-aged nurses are able and ready for leading positions. Some young men fill the gap but they are not well prepared either.

Although poor working conditions were mentioned by some, long hours of hard work was mentioned more often in the developed as compared to the developing countries where the shortage of equipment and supplies was more apt to be described. Mention was also made of the need for nursing research. One noted: "A management problem we experience in this country is the lack of systematic strategies to develop professional theory and research-based nursing practice." Another stated:

> A major problem facing nursing management is the need for better understanding through research on the relationships among nursing care requirements, resource allocation, case management, the costs of providing care, and quality of patient care outcomes.

Actions to Overcome the Problems

The ten major problems with the corresponding suggested actions were:

Major Problems	Actions
Shortage of nurses	Base nursing education on secondary education
	Improve systems of admissions to schools of nursing
	Create new schools of nursing
	Develop and require university education for nurses
	Improve working conditions
	Improve the utilization of nurses
	Encourage governments to develop clear job descriptions for health personnel
	Develop systems of career advancement
	Encourage national governments to support nursing to the same degree as medicine
	Assess nurse migration patterns
	Improve the image of nursing
Shortage of well-educated nurse managers	Improve and increase basic nursing education, on-the-job training, and continuing education
	Ask the World Health Organization to provide short- and long-term experts in nursing management
	Require university education
	Foster close ties between educators and administrators

Major Problems	Actions
	Actively recruit nationally, publicizing nursing as a career
Nurses' limited participation in planning and policy	Assess resources and set priorities
	Develop standards for the quality of nursing care
	Support a distinct nursing division in the Ministry of Health with funding
	Work with officials in international associations to improve understanding of nurses' contributions to health care
	Foster an international association for nursing administration
Lack of recognition and the low status of nursing	Establish collaborative practice committees
	Develop systems of interactions with other professionals
	Encourage careers and promotions based on merit not only seniority
	Develop or strengthen national nurses associations
	Support national associations of nurse administrators
Poor working conditions	Add auxiliary nursing personnel
	Provide adequate training for nursing auxiliary personnel
	Develop standards for safety, adequate equipment, and work-load.
	Improve nurses salaries and benefits
	Provide child care and ensure safety
	Provide special benefits to nurses in difficult, unsafe locations
	Transfer nurses giving respect to their needs and wishes
	Provide special management training for doctors and nurses
	Strengthen career guidance
Subordinate role of nurses	Provide management training for doctors, nurses and lay managers
	Foster the development of university education for nurses including masters and doctoral programmes
	Review existing organizational structures to strengthen the placement of nursing in these
	Hasten the development of nursing science and research

Major Problems	Actions
Inadequate information systems	Develop simple, but useful information systems
	Identify the most critical health-related data about people, communities, and countries
	Classify patients by acuity of nursing care needed
	Assess costs of nursing care and nursing care requirements
Little interprofessional collaboration and teamwork	Develop criteria for delegation of tasks and strengthen the required skills
	Foster interdisciplinary education and training and continuing education for nursing management
	Improve communication between nurse educators and managers in the health services
	Strengthen ethical decision-making
	Ensure a chief nurse administrator in every hospital or community health service
Need for supportive legislation	Collect useful data to support nursing positions
	Engage in political activity and lobbying
	Update existing outmoded legislation
Less than adequate emphasis on primary health care and epidemiology	Develop nursing education relevant to community need and primary health care
	Foster community participation in health planning
	Articulate research, education, and practice

The problems identified by people from fields other than nursing were similar to those identified by nurses. However, several of their suggestions are worth noting. With respect to hospital information systems, budgeting, and national health systems, two in the field of management from the European Region suggested:

> Develop information and support systems. Head nurses of wards must be given more power and made accountable for the care also in terms of the budget.
>
> Increase nurses' (and physicians') understanding, which is now too limited, of social problems and the importance of health system care in society. Increase the capacity to design and evaluate alternatives to formal public health systems.

From the field of medicine, one said, "A wholly new system of appointments and promotion (should be developed) on the basis of proven ability." And a second suggested:

> Management programmes should be taught together to all health care professionals so that they learn the same things and understand each other better. They must understand and communicate better than today.

* * *

In summary, heading the list of problems for nursing management is the shortage of nurses and of well-educated nurse managers. The challenge to nurses to improve decision-making by leading in planning and policy activities at all levels was strong. The need for programmes and legislation to hasten the development of women and nurses is viewed as a major problem as are the low status of nursing and

poor working conditions. The inadequacy of information systems in organizations and ministries was identified and, judging from the responses, this will continue to be a major problem in many countries well into the future. An additional problem is related to the comparatively little emphasis in some developed countries on primary health care, identifying health needs, and measuring results.

A wide variety of actions to overcome the problems and improve health systems was provided by those in all regions. To address the shortage of nurses, the activities that were emphasized included improving nursing education, developing job descriptions, ensuring opportunities for career advancement, and assessing the migration of nursing personnel. Actively recruiting nurses and fostering closer ties between education and service were also mentioned. Improved education for nursing management was widely discussed as was seeking increased national governmental support for nursing. The importance of nurses engaging in political activity to improve regulations and legislation was described fairly often. Less mention was made of nursing education that is relevant to community needs.

SECTION 5

Education for Improved Leadership and Management

The third set of items was about education. The first question asked about the subject content to prepare nurses for leadership in basic, post-basic, and university education. Next, participants were asked to describe the distance learning and home-study programmes in their countries and then to assess the usefulness of the 1988 education guidelines.

Subject Content for Basic, Post-basic, University and Continuing Education

Roemer's categorizations of knowledge for health systems management were used to group the subjects.

Basic Nursing Education

The following subjects[§] were described for basic nursing education.

Health Care Systems and Management

- Leadership
- Management
- Supervision
- Administration
- Communication
- Group dynamics
- Inter-sectoral teamwork
- Decision-making
- Organization of health services
- Professional development
- Ethics and law
- Interpersonal relations

Basic Tools of Social Analysis

- Sociology
- Psychology
- Social policy
- Political science
- Statistics
- Evaluation
- Historical analysis
- Research methods
- Community diagnosis
- Problem-solving
- Philosophical analysis
- Computer science
- Teaching methods

Promotion of Health and Prevention of Disease

- First-aid
- Hygiene
- Health education
- Health promotion
- Preventive social medicine
- Primary health care

Health and Disease in Populations

- Epidemiology

The subjects mentioned most frequently were basic management and leadership. The subjects rarely mentioned included health economics, financial administration, or information management. Computer science as a subject was mentioned in one reply from the European Region.

[§] Respondents were asked to describe the subjects specifically for leadership. Therefore, as anticipated, subjects pertaining more directly to clinical nursing, nursing science, health and disease, or health promotion were mentioned less often.

Post-basic Education

The following subjects were described for nurses' education at the post-basic level:

Health Care Systems and Management

- Leadership
- Management
- Administration
- Organization of health services
- Supervision
- Budgeting
- Communication
- Human relations
- Interpersonal skills
- Team building
- Assertiveness

Basic Tools of Social Analysis

- Sociology
- Psychology
- Social psychology
- Medical psychology
- Philosophy
- Demography
- Politics and law
- Political economy
- Statistics and biostatistics
- Research
- History

Promotion of Health and Prevention of Disease

- Public health nursing

Health and Disease in Populations

- Epidemiology

As for basic nursing education, the subjects mentioned most often, by nearly all, were management and leadership. One reply from the Americas indicated:

> In the last semester of the nursing pre-graduate programme, students receive their preparation in nursing administration. The course includes 500 hours of training. The experiences are theoretical and practical. These are applied in the hospital, health centres, and communities. Emphasis is made in applying the administrative process to improve the patient and community care, decision making, characteristics of the leader, and usage of developmental strategies.

Two respondents from countries in the Eastern Mediterranean Region made these comments: "There is a 1-year diploma in administration, a tailored 4-month course for leadership in primary health care, and several 3-week workshops on leadership", and "There are two programmes; both train nurse educators in the course named Nursing Education Administration." For basic and post-basic education, respondents from roughly one-fourth of the countries either provided no information or reported little to no content for leadership and management.

University Education

The following subjects were described for university education:

Health Care Systems and Management

- Leadership
- Management
- Administration
- Health care systems
- Organizational behaviour
- Information technology
- Industrial relations
- Supervision
- Guidance and counseling
- Planning and organizing
- Communication
- Decision making
- Professional development
- Human relations
- Ethics
- Personnel staffing

Basic Tools of Social Analysis

- Sociology and Social Administration
- Psychology
- Behavioural Sciences
- Education
- Biostatistics
- Research
- Health economics
- Cost benefit analysis
- Demography
- Political and legal aspects
- Social policy
- Quality Assurance
- Systems planning

Promotion of Health and Prevention of Disease

- Public health

Health and Disease in Populations

- Epidemiology

Management and leadership was described most often. Health economics, finance, and content for social analysis was mentioned to a greater degree. However, respondents from one-third of the countries either provided no response or said that programmes are not as yet available.

Continuing Education

Numbers of replies on continuing education varied considerably between country groupings, with the fewest in the least developed countries and the highest number in the developed. Participants from nearly half of the least developed countries, either provided no information or noted that continuing education was limited or non-existent. One from the African Region stated, "There is as yet no policy for continuing education for nurses. There are from time to time regional and national seminars and occasionally nurses may be sent to seminars abroad." The content described where courses exist included ward management, programme management, communication, and community health. In one-fourth of the developing countries participants commented that there were few if any continuing education opportunities to prepare nurses for leadership. The content that was described included management, administration, leadership, communication, development, accountability, supervision, and research. Respondents from the three Eastern European countries described some continuing education activities and content pertaining to management, organization, and health promotion.

For four of the twenty-four developed countries, respondents either provided no information or said there was little continuing education with the exception of inservice training. The remaining described the following subjects for continuing education:

- Management
- Public administration
- Organization
- Information systems
- Communication
- Ethics
- Interpersonal Skills
- Assertiveness Training
- Negotiation
- Legislation
- Finance
- Economics
- Planning
- Quality assurance
- Patient classification
- Research
- Work-load measurement
- Personnel staffing

Home-study and Distance Learning Programmes

The next question asked whether home-study or distance learning programmes were available to educate nurses for management. For the least developed countries, only about ten percent appear to have these programmes, cpmpared with one-fourth of the developing countries. The programmes were available in two of the three Eastern European countries and in nearly one-half of the developed countries.

The programmes are sponsored by universities, governments (usually the ministry of health), nurses associations, hospital associations, medical centres, and international agencies such as the Pan American Health Organization. A variety of instructional technologies was described including case studies, television aided instruction, tutorials by telephone, auto-instructional materials, self-learning packages and manuals. Home-study with lectures, correspondence courses, and video-taping was also mentioned.

Education Guidelines

The usefulness of the 1988 education guidelines for nursing management were next assessed and additions or deletions were discussed. The major problems for nurses in management, as identified in 1988, and a summary of the corresponding recommendations, which served as the guidelines, are shown below:

Problems	Guidelines
Shortage of nurses	Emphasize primary health care and manpower goals, planning
	Develop collaborative education and practice models
	Raise standards of admission and performance
	Use home study and distance instruction
	Develop commitment to life-long learning
	Recruit experienced nurse managers as members of faculty teams
Inadequate information and support systems	Emphasize management information systems and information processing
	Use interdisciplinary faculty with expertise in communication, computers, systems analysis
	Emphasize delegation of responsibility and follow-up of auxiliary workers
	Address technology transfer, socio-cultural bases, international connectedness, and history
Few models of collaborative interdisciplinary practice and education	Develop new, improved programmes using faculty from nursing, medicine, management and public health
	Improve understanding of epistemological approaches to interdisciplinary education, cooperation, negotiation
	Have students from each field in courses with joint practicums in primary health care
	Understand the advantages and limits of hierarchy
Near absence of clinical epidemiologic approaches	Emphasize the assessment of health needs, disease, and environment
	Emphasize economics, statistics, epidemiologic trends and programme planning, implementation and evaluation
	Balance public and private sector management perspectives

Problems	Guidelines
Limited participation in planning	Include population-based forecasting, planning, decision-making
	Emphasize citizenship and leadership responsibility, and national and international policy making, implementation, and evaluation
	Encourage inclusion of consumers in health planning through direct contact
	Consider ethical-moral implications of decisions and policies.

Four-fifths of the participants provided assessments. While most of them found the guidelines useful, the following comments should be noted from the different regions:

African Region

They are very useful but need to be adapted to our reality. Adjust the major curriculum units to the country's specific needs and resources. We would add: sanitation, economics, and group dynamics.

These are useful, but perhaps easier said than done. I believe teaching methods using adult education techniques are as important as the curriculum content. The recommendations are rather non-specific. Perhaps there should be a strategy section on how these could be achieved given the rigid nature of some training programmes.

American Region

Women's studies should be added to give female nurses a sense of themselves.

The guidelines could be useful when planning educational programmes for nursing leadership and management. However in small island states, implementation could prove difficult due to the limited resource personnel and practice sites. A regional institution (university) would be better able to implement the guidelines.

Eastern Mediterranean Region

All are relevant except for the use of home study and distance instruction. The nature of the educational system within the country does not facilitate the adoption of such a system.

Most nursing education programmes have a long way to go before all the suggestions can be implemented and a lot of international assistance will be needed.

They are very useful and relevant. But as suggested in the text, there is a need for each country to adapt to local conditions and need. The issue, management of health services by nurses, should be discussed in the general assembly meeting of WHO. The World Health Organization must take the lead in ensuring nurse managers become health service leaders.

European Region

Economic and political developments should be included...how to develop political strategy is important. To emphasize citizenship is probably not too relevant. To emphasize responsibility for each other, regardless of citizenship, is important.

The educational guidelines emphasizing the necessity of nurses' education together with physicians and other medical professions are extremely useful though in many respects it very difficult to implement them in practice.

A physician stated:

The recommendations are not very useful. They start at a level which assumes knowledge which is not usual here.

South-East Asia Region

Though very idealistic and rational, most of the guidelines seem appropriate for more advanced nursing situations than ours. Our nursing units are overwhelmingly overcrowded with patients and problems, struggling with meagre resources in terms of space, sanitation, equipment, nursing manpower, and other kinds.

Western Pacific Region

History should include history of the women's movement, feminism, power, and politics.

I would like to see more explicit reference to theory development and organization of nursing's body of knowledge. This is a necessary co-requisite to developing collaborative and interdisciplinary models.

* * *

In summary, there is widespread agreement that strong programmes of education are needed to ensure intelligent management and leadership by nurses in health systems. For population-based health services, a vast amount of knowledge and many human, conceptual, and technical skills are required to identify health needs, plan, procure and maintain resources, organize and manage, and then evaluate the results. The management education content in nursing programmes is uneven or poorly developed in many countries. There appears to be some basic leadership and management content in nursing education in some countries. But the content pertaining to national health systems and evaluating the quality and costs of health care is especially weak.

Subjects which were either not mentioned or mentioned infrequently for university education, included national health care systems; comparative international health systems; population sampling and surveys; and programme evaluation. Judging from the number of people who did not respond to the education questions and from the comments, even though many subjects were listed, the management and leadership content in nursing education is poorly developed and not well integrated into the nursing curricula at the basic, post-basic, and university levels.

SECTION 6

Research and Theory for Leadership and Management

The final items were about research and theories for nursing leadership and management. Questions were asked about nurses' education for research and about important research topics and methods. Several items asked about useful theories and for a critique of a model to guide nursing education.

Nurses' Education to Conduct Research

Respondents were asked to indicate if nurses were taught how to conduct research and then briefly to describe that education. Those from 80 percent of the countries said "Yes", nurses were taught how to conduct research. However, research was less likely to be taught in the least developed countries. But one made the following comment.

> New courses will be introduced in the near future in the nursing school programme aiming to teach students the basic ideas of research. Meanwhile students are used by certain services of the Ministry of Health in working on research reports.

Education for nursing research in the least developed countries, when it exists, is usually comprised of introductory research courses to promote awareness and provide beginning skills.

The education for research described for the developing countries included courses in scientific method, research methodology, project development, social epidemiology, management research, biostatistics, action research, and multivariate analysis. Learning experiences included writing proposals, data collection, data analysis, presentation of results before a review panel, external examiner reviews, obtaining funding, writing articles for publication, and field trips to research institutes.

In Eastern Europe, one respondent, when describing basic preparation, stated, "Our nurses have some basic knowledge of research." Another, describing a university programme, indicated: "The nursing curriculum contains 30-hours of nursing research methodology, 120-hours of graduate seminar, statistics, informatics, and a master's thesis."

The following educational courses and activities for research were described for developed countries:

Basic Education

Courses	Activities
Introductory research methodology	Small research project
Statistics	Applying research
Research applications	Participate in a study as a research assistant
Research awareness	

Post-basic Education

- Elementary research and methodology

University Education

Courses	Activities
Statistics	Thesis
Biostatistics	Research project or mini-thesis
Epidemiology	Research project assistant
	Doctoral dissertation
	Implement research results

Continuing Education
Research methods

Research skills
Computer training

Important and Unimportant Research Topics

Next, participants were asked to review the research priorities described in 1988 and then to signify which they considered to be "Very Important" or "Not Important" for their countries. The 1988 priority topics were as follows:

Nursing Service Research

Studies

- Developing and testing models on the availability and allocation of nurses, nurses' productivity, and the quality of care delivered to consumers
- Developing and testing models to improve understanding of the balance or ratio of quality of care to the cost of care
- Developing and testing delivery systems of varying organizational designs which facilitate the provision of high-quality professional practice and successful outcomes
- Investigating the education of nurses for general and specialty roles in relation to societal expectations and resources, levels of performance, and quality of care
- Developing and testing organizational models for the effective facilitation of clinical nurse specialists and examine the influence on professional performance and programmes of nursing care
- Examining communication within organizations and communities, within and across disciplines, and across national boundaries for improved nursing and patient services
- Developing models and programmes for the transition of patients from one health service to another.

Nursing Administration Research

Studies

- Examining the relationship of administrative style and the productivity and satisfaction of workers
- Testing decision-making models for all levels of nursing administration and examining the relationship of decision to outcomes, including the quality and cost of care
- Describing the characteristics of nurse administrators and high levels of managerial productivity
- Analyzing the influence of nurse managers' strategic planning on the commitment of co-workers and programmes of care
- Describing the strategies to motivate workers and increase levels of productivity
- Describing and analyzing leadership.

Respondents from all countries stated that nursing service research is more important. One said, "The topics listed under Nursing Administration Research, although important, cannot be looked at until the topics related to Nursing Service Research have been greatly improved".

The research topics considered most important to those from the least developed countries, were those addressing the availability and allocation of nurses, nurses' productivity, quality of care, and models to improve understanding of the balance of quality and cost of care. One made the following statement:

> Since no valuable research has been done on nursing, all topics appear to be very important. This is more so when one considers the moral decay coupled with low working morale. However, research on the shortage of nurses and retention of high performing nursing personnel to effect quality of nursing care, would be very relevant.

One respondent in the field of pubic health offered the following advice:

> I would stress that while nurses should certainly be involved in research in nursing, they should also be more involved in general health services research. At the same time, researchers with a

non-nursing background, including social scientists, need to do more work in nursing research. I would stress the need for interdisciplinary research.

Respondents from developing countries identified the same research topics as very important. However, study of organizational designs and structures to facilitate high-quality practice was mentioned to nearly the same extent. Utilizing nurses for primary health care, health promotion, and disease prevention was also often mentioned. After describing research on the availability and allocation of nursing personnel as important, one participant from a developing country in the Eastern Mediterranean Region said:

> Of almost equal priority is developing and testing models to improve understanding the balance and ratio of the quality of care to the cost of care. This country has a very low percentage of its total budget allocated for health services. But the National Health Policy very recently passed proposals for a great expansion in the number of rural health facilities, increases in the number of nursing personnel at all levels, and changes in the curricula to prepare for PHC.

Another stated:

> At present the women and children are very much neglected and one major cause of this seems to be the dearth of women health personnel in government facilities. The basic cause of this is rooted in the culture of the Region. What can be done to overcome these problems, and what education is required by nurses, doctors, and auxiliary personnel needs to be determined through appropriate research.

According to the respondents from Eastern Europe, the availability of nurses and balancing cost and quality are the most important topics. There were similar responses from developed countries, although there was wider variation in the topics identified as important. Nearly all the research topics categorized as nursing service research were mentioned, with availability and allocation of nursing personnel, balancing quality and cost, nurses' education and performance, organizational models, and communication listed as most important. With respect to research on the performance of nurses in specialty roles, one respondent from Europe in the field of management commented:

> I think there is already too much specialization, fragmentation, and self-interested professional thinking in the health sector. Collaboration, integration, inter-sectorality should be emphasized. Nurses should not be trained and nursing should not be organized according to the very specialized and fragmented medical model. It hampers realization of holistic care.

Methodologies in Use and Those Useful for the Future

The third question about research asked which methods were used most often and which were likely to be used in the future. The five methodologies in 1988 included descriptive studies and surveys, hypothesis-testing research, programme evaluation, policy studies, and diffusion and utilization projects. Seven respondents from least developed countries and ten from developing countries provided no information. One said, "Nurses are not doing research in my country. Most of the research is done by other professionals." On the methods that may be used in the future, descriptive studies and programme evaluation were mentioned most frequently for the least developed countries. In the developing countries, if descriptive work was underway, then hypotheses-testing, programme evaluation, and policy studies were described for the future. Several people also discussed the importance of historic and philosophic inquiry and the use of qualitative approaches. The reports from developed countries varied widely. A number from western Europe that said little to no nursing research was being conducted. Describing the methods now and for the future, one stated

> Nursing administration research in this country is not very advanced. Essentially the area of interest has been staffing, that is, patient classification and various studies of how nurses use their working hours. Quality assurance studies are now developing. In the future, from an administrative point of view, I think descriptive, policy, and programme evaluation will be very important.

Many commented that more hypothesis-testing, programme evaluation, and policy research was anticipated in the future. For all countries, diffusion of knowledge and technology research was mentioned least often.

Recommendations to Improve Research

The final item about research asked about ways to improve future research for the management of health services by nurses.

From the least developed countries, the recommendations were to:

- Integrate research in general nursing education and at all levels;
- establish focus groups which can provide leadership, for example, for AIDS control and other primary health care research;
- ensure that nursing research is relevant to national needs and priorities;
- develop a national nursing research group and a research information centre;
- systematically disseminate research results;
- create a post for nursing administration in the ministry of health;
- encourage nurse researchers in developed countries to assist their peers in developing nations.

From developing countries, the recommendations were to:

- Solicit funds for nursing management research from the national government and local institutions;
- introduce an inter-country exchange of research reports through journals and the development of information centres;
- promote interdisciplinary research with health services administration with an emphasis on primary health care;
- create a research unit at the directorate level to conduct and compile research then to plan for implementation and evaluation;
- foster the procurement of more fellowships for study abroad;
- ensure a positive attitude about research among nurse managers;
- feature research in the nursing curriculum from the basic to the higher levels; Ensure training in biostatistics and data processing;
- make evaluation research imperative in every programme.

Three recommendations from Eastern Europe were to:

- increase the number of experimental studies;
- heighten the awareness among nurse managers that they have a duty for both theory and practice;
- develop nursing administration research on an international scale.

Recommendations from developed countries were to:

- improve the access for obtaining permission to do nursing research form health service authorities;
- ensure that students focus on relevant research;
- encourage nurses to obtain education in mathematics, critical thinking, and history;
- encourage post-doctoral research training and greater interdisciplinary education;
- hasten improvements in nursing documentation, information management, and the computerization of data for national and international comparative studies which can affect health policy;
- convene workshops and seminars on specific research methods in the Workgroup of European Nurse Researchers and through WHO;
- identify opportunities for nursing research through the European Economic Community;

- encourage an action research orientation;
- select likely researchers early and plan career accelerated pathways;
- ensure cooperation with the medical professions for holistic approaches to health care.

Useful Theories

Next, descriptions of useful theories for improving the management of health services by nurses were sought. The theories mentioned by several from the least developed countries included those of primary health care, clinical epidemiology, and organizations. Administration, and management and leadership theories were also mentioned, as were communication, power, roles, organizational development, caring, health, and environment. The concepts of quality, interdependence, and nursing requirements were noted.

The theories mentioned by about one-fourth from developing countries included leadership, communication, organization and organization design, and motivation. The theories mentioned by about 10 respondents listed: power, control, authority, clinical epidemiology, and role, while several included development administration, economics, systems, change, primary health care, decision-making, health promotion, health behaviour, nursing, and caring. Other theories mentioned at least twice included quality of care, environment, public health, health care administration, cultural diversity, commitment, education, public administration, and performance evaluation. An insight shared about theory by one nurse from a developing country in the Western Pacific Region was as follows.

> Development administration: In developing countries the nursing administration role must be conceived and developed and implemented in the context of development taking place in the country. This means recognizing national development goals within the political, economic, and socio-cultural values of the people. This also implies that the development nurse administrator is primarily engaged in the management of change and growth that will improve the quality of life of the people bearing in mind the impact of such sectors as agriculture, housing, sanitation, education, and so forth.

All participants from the Eastern European countries responded. The theories they listed included those of nursing, organization, equity, motivation, autonomy, decision-making, and leadership. For the developed countries, organization theory and general management or administrative theories were most often mentioned as useful, by about one-fourth of the participants. The theories described by several were those of organization design, economics, quality, communication, motivation, and leadership. Theories mentioned by a few included those of systems, development administration, power, role, and clinical epidemiology. Other theories mentioned once or twice included those of equity, decision-making, change, planning, ecology, labour-management relations, primary health care, stress, and multi-sectoral collaboration.

Critique of a Model for Nursing Education

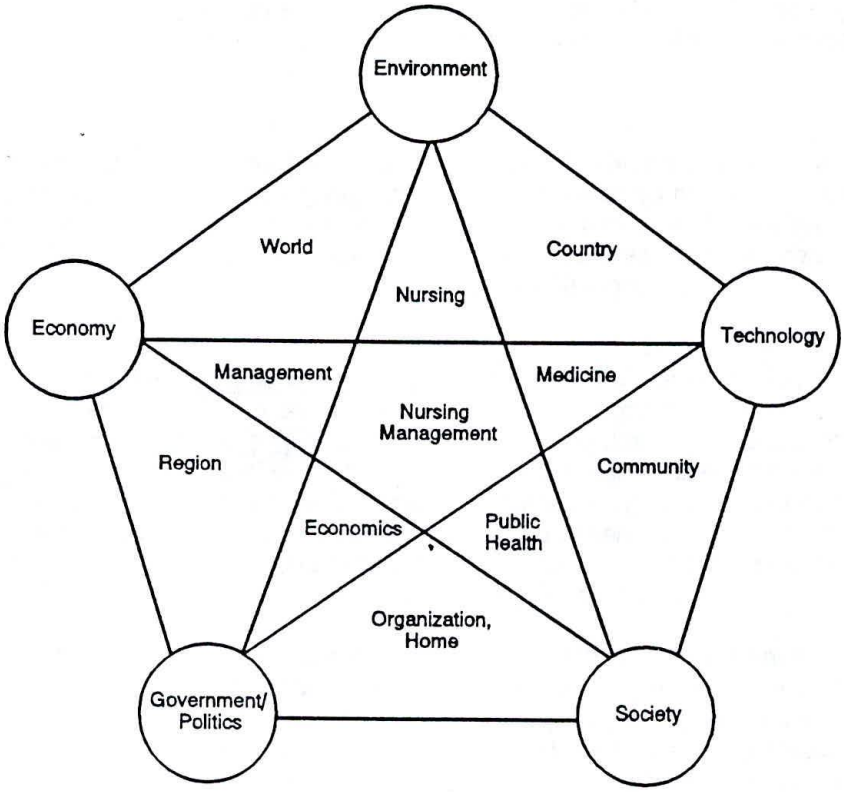
The two final questions asked for assessment of a model meant to show the key contextual factors (outer circles), the main bodies of knowledge (the five triangles), and the domains of application for nursing management education.

In response to the query as to whether the model provided a useful guide for the education of nurse leaders and managers, more than three-fourths responded "Yes."

Among the comments were:

> It might be helpful also to reflect in a sub-model the process aspects of nursing service administration such as the managerial processes, policy analysis, impact evaluation.

> Well suited to educational interpretation. The guide is useful for the education of senior leadership in nursing in my country.



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In summary, for the developing countries, when research is taught, the emphasis is on promoting awareness of scientific method, basic research methods, and report preparation. Some research content is part of nursing education at the basic, post basic and university levels in nearly all developed countries. The topics for research in nursing management considered most important included those focusing on the availability and allocation of nursing personnel, the quality and cost of care, and the organizational structures in health systems. From all regions, descriptive studies and surveys were reported most frequently and programme evaluations second. Hypothesis-testing research was reported more often from the developed countries where policy research and diffusion projects were also occasionally reported. Several of the more prominent recommendations to improve research for nursing management included ensuring the focus on relevant problems, promoting interdisciplinary research and evaluation projects, and using focus groups. Several of the theories mentioned most often were leadership, management, organization design, organization behaviour, clinical epidemiology, development management, social equity, nursing, caring, and health economics.

SECTION 7

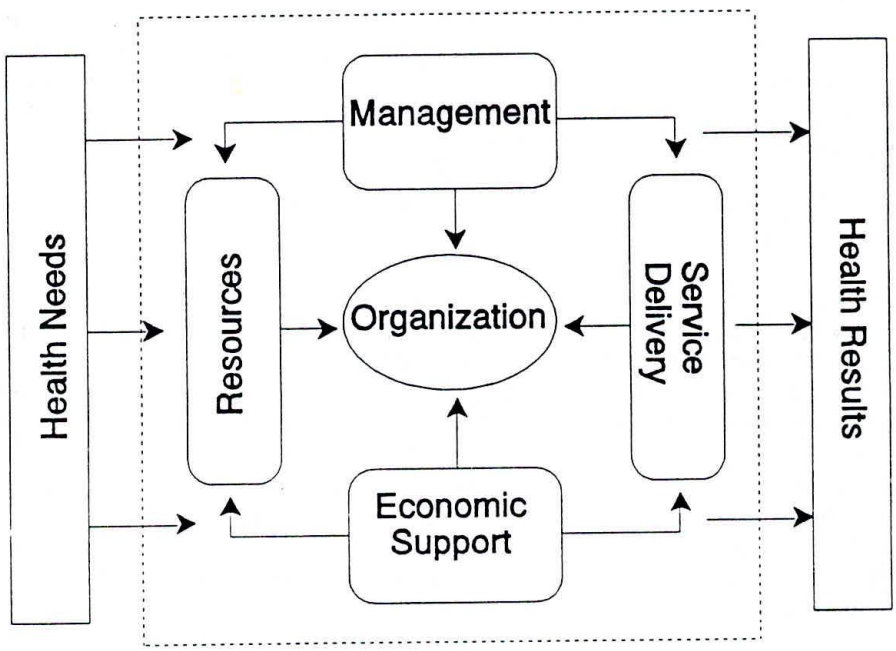
Discussion, Implications, and Recommendations

Countries in all regions need nurses who understand health problems and can manage the health services. It is not possible to effectively implement the health for all strategy effectively without the full participation and leadership of nurses. And yet, judging from the study findings, the problem of too few well-prepared nurses for management and leadership is widespread and complex. Many of the social, cultural, economic, and political origins of the shortage of nurse managers were described, including those related to national health systems. Some discussed absent or weak organizational structures. Others described their rigidity with nearly all power centralized and little dispersed to districts and communities. A number expressed their concern about how little attention is paid to people's health needs and to costs. Others noted that nurses are unable to analyze and evaluate the quality of programmes.

Future action is necessary to recruit qualified people into nursing, to educate them to meet health needs, and ensure their contribution to the protection and promotion of health. But to begin with, nurses' management of the health services should be viewed in the context of the health system, not separate from it. A future challenge in all countries is to develop education programmes that reflect an understanding of the components of health systems, the relationships of the component parts, and some of the main socio-cultural, economic, and political factors that contribute to a country's health activities.

Health Systems and Nurses' Leadership and Management

A "health system," to reiterate, is the complex of activities that result in the health services. In 1988, the following model of a health system by Roemer, which can apply to nearly every country was discussed.[11]



[11] For a fuller discussion of the model see "International Health Care Systems, Their Management and the Role of Nurses," by M. I. Roemer in *International Administration of Nursing Services* edited by B. Henry, R. Heyden, and B. Richardson and published by the Charles Press, Philadelphia, 1989.

The model shows the five main parts of the system and their relationship to health needs and results. The parts are: resources, management, economic support, organization, and service delivery. The model can serve as a guide to show where nurses' leadership and management is necessary. Moving from left to right, leadership entails identifying health needs and empowering individuals and communities to identify their own health needs and to take the necessary steps towards better health. Leadership and management skill is then required for procuring and distributing resources through effective management, ensuring an appropriate organization of programmes and economic support for service delivery, and evaluating the health results.

Health needs are the single most salient preceding factor. Within the system, those in leadership positions manage and share information with policy-makers for improved governmental regulation and legislation. Effective management entails planning for and obtaining personnel, information, and monetary resources. It involves gaining the economic support of governments, developing programmes and designing organizations at the national, district, and community levels by involving public and private organizations. Effective management also involves delivering the most appropriate services through primary, secondary, and tertiary care and evaluating the outcomes or results in terms of health status, costs, and quality of life.

Health System Problems

Authorities on national health systems have described the major problems in these systems.[69] Some were discussed or alluded to in the study. Among the most prominent of the problems are inefficient organizational structures. In many countries, authority is dispersed among a variety of public and private agencies, often with little coordination. This problem results in costly duplication of effort or little to no effort where it is most greatly needed, especially in rural areas. Because of the poorly designed structures the provision of health care is problematic. Some health needs are neither recognized nor treated and there is little continuity of care. Community care is often inadequate and services are provided by personnel whose qualifications are poorly matched with people's need. This mismatch results not only in poor care but also in ineffective and costly use of the workforce. Another problem is that lines of authority are not always clear or, as some participants in the study noted, organization structures are rigid, weak, or even nonexistent. Who reports to whom is hard to discern and there is little understanding about how to make and implement useful policies. Inter-sectoral linkages, as noted in the study, between service and education and between nursing and medicine are also weak. Policies affecting multiple sectors either are not formulated or, if they are, they are often not implemented. Another problem is that in nearly all countries the people in the communities served by the health care system only rarely participate in health planning and policy-making. The channels of communication among the sectors of the health system and the public seldom convey information in a timely fashion. With only limited information, sound planning that begins with assessment of health needs and ends with the evaluation of results is unlikely.

Casting the study findings in terms of the health system, the shortage of nursing resources in relation to health care needs is a major problem. The geographic distribution of nurses is highly problematic with some rural and economically deprived areas remaining underserved because of nurses' concerns about safety. In addition, some of the nurses who are available have not been educated in accordance with the health needs of the country. As several in the study noted, nursing education has tended to focus heavily on tertiary services and less on the delivery of primary health care. In part, this is because of the shortage of well-prepared nurse educators and managers and because nurses have participated comparatively little in national planning and policy activities. Added to these problems are the low status of nursing, poor working conditions, subordination of nurses to medical doctors, little collaboration among professionals, less than adequate economic support for nursing education, and inadequate information on which to base sound decisions.

Planning for Resources and Programmes

Decisions are made by managers to assess health needs, to plan, organize, operate programmes, and evaluate the results. Planning improves decision-making. Improved decisions are needed in health

systems more than in almost any other domain. Yet in the study, for nearly one-third of the countries in all Regions, nurses rarely take part systematically in planning, especially at the national level, even though planning is one of the main management functions.

Planning is thinking about what lies ahead before taking action. To plan requires, first, that the purpose of what is to be accomplished in order to achieve a goal is understood. Second, relevant information is gathered about pertinent past events and their costs, benefits, and results which can then be used to set the goals. The following is a useful three-step formula for planning.[70,71]

1.	State the purpose	Decide what is important, what is to be accomplished, and why
2.	Create a planning system	Develop broad goals. Write specific statements of expected results Develop methods for achieving the goals and a time-frame
3.	Foster motivation and evaluation	Formulate objectives, targets, and standards of performance Communicate the goals, objectives, and targets to all who are involved Develop reward systems tied to achieving the goals Evaluate the adequacy of resources in terms of the purpose, goal, and performance indicators.

National health plans and health policy are related to one another in the following way: each government needs a national health policy that conveys the course of action required to achieve the defined goals for improving health. A national health policy provides the overall framework and is usually stated in general terms. A national strategy delineates more specifically the action that will give effect to the policy, including the specific programmes, their objectives (or end results), and targets (or intermediate results). Once the strategy is defined, a national plan of action is developed. National plans specify the steps that should be taken to achieve the objectives and targets.[2] Planning in a health system may be comprehensive, with planning activities at all levels, or centralized in the national ministry, depending on the planning ideology and economic situation.

The Forty-second World Health Assembly specifically urged Member States to support the appointment of nurses in senior leadership and management positions and to facilitate their participation in planning and implementing national health activities.[1] Based on the findings, the planning activities for which senior nurses in the health services should be skilled include:

- planning the organization of programmes for service delivery;
- planning health education and research programmes;
- planning the number, quality, and distribution of nursing personnel;
- planning the content and design of information systems;
- planning for resource allocation and consumption through budgeting;
- planning for programme evaluation.

Examples of the local planning activities for which nurses in communities should be skilled include:

- planning to improve and measure the quality of a nursing service;
- planning for the recruitment and allocation of personnel resources;
- planning training and other personnel development activities;
- planning manual and computerized record systems;
- planning for the purchase and maintenance of supplies and equipment;
- planning for evaluation of the nursing service.

Determining Health Policy

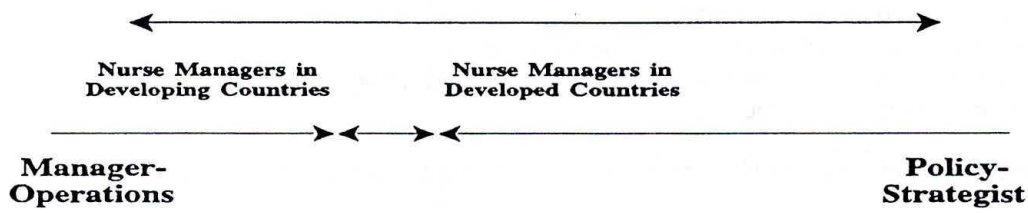
It is equally essential that nurses take part in determining health policy. And yet in many countries, judging from the responses, nurses in senior positions implement national health policy but usually do not participate in determining policy. As noted, a policy is a course of action chosen by an organization, community, or government. Policies can be spelled out or simply be implied by the major decisions that are made. When policies are explicitly made, there are five stages and activities in the policy process: problem formation, policy formulation, and policy adoption, implementation, and evaluation.[72] The most basic stage-one activity is problem formation. At the first stage for determining health policy, information is gathered about major health problems and needs as shown here.

Stage 1 Problem Formation	Stage 2 Policy Formulation	Stage 3 Adoption	State 4 Implementation	Stage 5 Evaluation
Gathering information about the major health problems and health needs in the Society				

In the study, relatively little discussion was found of health needs analysis as a nursing activity in the health services or as a component of nursing management education and research. Yet, participants expressed their concern that the health services and nursing education were not population-based, that is, they were not aligned with the health needs of the people. Therefore, a **recommendation** to nurse managers is to include health needs analysis in planning and policy activities. And a **recommendation** to nurse educators is to include course content, especially at the post basic and university levels, about health needs and the relationship of these to determining policies and plans.

Analysing health problems and needs is a strategic management task. A study finding was that nurse managers in leadership positions in many countries engaged more in daily operating than in strategic tasks. For nearly all countries, administrative functions were described more often than managerial ones. Variations in the patterns of functions inferred from the findings are illustrated here.

Manager-Operations/Policy-Strategist Continuum



The use of a continuum illustrates the idea that management and determining policy are not two isolated activities. Recalling the earlier definition of management, determining policy is one of the essential managerial functions. Effective managers, those who are capable of compiling the most useful data and efficiently managing complex operations, should also have an impact on national health policy. However, the findings suggest, as shown by the continuum, that the main functions of nurses in

leadership positions in many countries may be more confined to the basic administrative activities of daily operations rather than to the strategic policy-determining tasks. In the study, several observed that nurses' participation in operations "is much bigger than in the strategic area."

In 1988, two categories of tasks for nurses in leadership positions were described: "critical operating" and "strategic management" tasks.[73] Critical operating tasks are basic functions that must be done to implement policy. Examples of activities in this category, which were described in the study, included developing standard operating procedures, providing supervision, implementing licensing regulations, and developing continuing education programmes. Strategic management tasks on the other hand are the functions that determine policy. Some examples of the strategic activities that were described included setting standards for nursing education and practice, representing nursing to governmental agencies, supporting changes in health care legislation, developing new services for primary health care, disseminating timely information, participating in evaluating health problems with the public, and promoting international relations. To participate fully in determining policies, nurses need well-developed political skills. Political skill entails being able to negotiate and bargain, having the time and ability to develop strong networks, being persuasive, and understanding people's values. Political skill requires being able to understand who stands to gain or lose if an existing policy is changed or a new one is adopted. For determining governmental policy, it is also necessary to understand how regulations and legislation are developed and adopted.

Engaging successfully in strategic management activities is especially important for senior nurses in national ministries. Judging from the study findings, having nurses in these positions is a help or a hindrance depending on their knowledge, motivation, and strategizing skills. While the fact that such positions exist is of major importance, there are disadvantages to having them filled by nurses with less than adequate experience and education. Reacting to the problems in health systems, prominent among which is the shortage of personnel, many in the study suggested that nurse managers should be more strategic and progressive if a balanced nursing manpower pool is to be achieved. The following definition of health manpower imbalance is **recommended** for understanding the nursing shortage and its health policy implications:

> "Health manpower imbalance is a discrepancy between the numbers, types, functions, distribution and quality of health workers, on the one hand, and on the other, a country's needs for their services and its ability to employ, support and maintain them."[74]

The personnel resource problems in nursing pertain to many of the key factors in the definition. The number, type, function, quality, and distribution of nursing personnel often does not match the health needs and a country's ability to employ or support and maintain them. For many of the countries in all regions, as respondents noted, even though the need for nursing services is high, the ability to provide safe employment with reasonable working conditions and adequate salaries is low. Nurses comprise the largest pool of human resources in health systems. Therefore, a **recommendation** to senior nurses is to develop and scientifically test need-driven nursing manpower models to address and correct the current shortages whenever possible. And a **recommendation** to nurse educators is to include course content, especially in university programmes, on the economics of supply and demand and the methods of human resource analysis.

Any resource analysis, judging from the findings, will have to consider the poor image or low standing of nursing. Identification of nursing with women's work and the lack of value accorded to such work is a major factor in the shortage. This holds true for most countries including several in Europe, for example, Austria, France, Germany and Italy. Nursing's image is equally poor in some developing and resource-rich countries in the Eastern Mediterranean Region. In these, the social position of women and religious custom seem to be major factors contributing to the standing of nursing and therefore to the imbalance of nursing resources.

Women are about one-third of the world labour force. According to predictions about the global labour market, in the future women will enter the workforce in greater numbers, especially in developing countries and in Germany, Italy and Spain, where there are still fairly low rates of female participation.[75]

The World Health Assembly has recognized the problems for women at work. It has expressed concern about the decline in the number of nursing personnel, the declining number of students being recruited, and the few nurses in management positions.[1] The study results show that leadership is required at all levels of the health system if these trends are to be reversed. Policy reforms are necessary. Leadership of nurses is widely needed, especially to improve personnel management, to determine organization structures and policy, to plan programmes, set standards, ensure the flow of information, budget, and evaluate. Women have become part of the political life in many European countries, but they are almost absent from top power positions in many African and Arab countries, for example.

Implications and Recommendations for Nurses' Education

A shortage of well-educated nurse managers in leadership positions is a frequent problem. However, this shortage is not limited to nursing as is apparent in these statements from the World Health Organization:

> "The training of health professionals in the past did not prepare them to assume leadership roles and carry out the managerial functions expected of them in striving toward the goal of health for all. There is therefore a need to assess and revise the curricula of training programmes for health professionals so that they meet present needs."[76]

Many suggestions were made in the study of ways to strengthen the training for nurses to increase the likelihood of their being more efficient and effective. Efficiency is expending the best possible effort in relation to the resources consumed. Effectiveness is achieving results in accordance with the objectives for improving a situation.[2] An important **recommendation** was to increase governmental support for schools of nursing and for nursing management programmes. However, improvements in nursing education are directly related to the progress in primary and secondary education which is slow for women in some countries. When creating programmes to foster the development of nurses' management skills, remedial preparation may be necessary. Slightly more than one-third of all the world's women are unable to read and write. In the developing countries of Africa, the figure jumps to two-thirds, and in Asia nearly half the women are illiterate. For the least developed countries, three-quarters of all women cannot read or write,[77] a situation that poses a great challenge to all concerned with a country's development. There are also barriers to nursing education in universities in developed countries where women's early education is well-established. The need to plan university programmes with a well-designed management component remains a major challenge in nearly all developed and developing countries, as does educating men and women equitably.

Nursing education for management begins with knowledge of people's health problems and needs, of health systems and of the research and theories that pertain to managing. If the health services are to become more efficient, effective, and equitable, the task ahead is to prepare students who are able to analyze health needs and understand the basics of management, including how to determine organization structure. Some health systems are highly centralized with most of the authority vested in a few people at the top. This is likely to be the case in developing countries where health care is centrally planned. Others are decentralized with authority vested in individuals or groups at the district and community levels. There are advantages and disadvantages to centralized and decentralized structures, but excesses in either direction lead to inefficiencies. Decentralization tends to work best in fast-changing environments with well-educated personnel who are able to be self-directed and tolerate uncertainty. Centralization on the other hand works best where the sense of nationhood may not yet have developed but the political and economic infrastructures are sensible and stable.[78] However, as a general rule, national health development is hastened when the authority to make decisions is delegated to the district and community levels.[2]

Judging from the study findings, nurses participate little in determining the structures of services and systems. Therefore, a **recommendation** to nurse managers is to ensure that appropriate organizational structures are designed so that the needs of the population for nursing services are adequately addressed. For education, it is **recommended** that concepts of organization structure be introduced in basic programmes in terms of small nursing organizations and expanded in university courses to include

the components and design of national health systems. To understand how to analyze environments and match the design of organizations with these, course content, as was found in the study, is needed that focuses on theories of systems, organization design, and organization behaviour. Important concepts include those of authority, power, communication, group dynamics, and decision-making. Content addressing population demographics, social indicators, and vulnerability analysis is also **recommended** to improve nurses' understanding of organization structures, and their effects on the quality and cost of people's health care.

There is little doubt that educating nurses for management can also have a favourable impact on working conditions and personnel management. The conditions at work for nurses in many countries are a problem. Work-sites are often unsafe and lack support services and good supervision. Job descriptions to guide workers in their daily activities often do not exist. Positions at the senior level are sometimes filled based on seniority and political connections rather than on meritorious performance. In addition, nurses' relationships with doctors are often problematic. Without well-prepared nurse managers, productivity and morale can quickly fall because of the inappropriate mix of personnel, poorly organized job assignments, and the unwillingness or inability of doctors or nurses to delegate non-technical tasks to less costly workers.

Frequently, too, the flow of information is poor. When describing the functions of senior nurses, participants from all the regions mentioned ensuring information flow comparatively less often than other functions. But the "lack of solid data about people's need for nursing care" was mentioned by several, as was the importance of information for measuring results. Therefore, it is strongly **recommended** that nurses' education include subject content pertaining to the types of information, information systems, and the management of information.

Well-designed information systems get the right information, to the right people, at the right time. Having inadequate information in the health services can be a major problem because timely information in a useable format is essential if each part of the system is to function well. Managers without information about health needs, resources, quality, costs, and results cannot plan or develop useful budgets. They are unable to set appropriate standards and monitor performance. As a consequence they are unlikely to succeed in providing the required services, of a reasonable quality, at an appropriate cost. Intelligent planning and policy-making as well as daily decision-making are dependent on having an adequate supply of valid information that is available when needed, is uniform, and is neither too detailed nor overly aggregated.[79]

Another **recommendation** to nurse managers and educators in all countries is to ensure that information is transferred between the service and education sectors. The problem was expressed in the study that often there is little relationship between the service and education sectors. Information about the problems and changes in practice should be channeled to nurse educators. Likewise, information about the problems and changes in education should be available to those in the health service if the practice of nurse managers and their basic, post-basic and university education is to be relevant. Information from service and education is also required for the advancement of nurses' knowledge through research and theory-development. Information systems that are elegant in their simplicity can also enhance the collaboration of nurses, physicians, and others and thereby increase the efficiency of working arrangements in which there is the best use of nursing and medical skill and successful team functioning.[80]

* * *

In the following three subsections **recommendations** are made for nursing education at the basic, post-basic and university levels based on the inferences and conclusions drawn from the findings. However, future decisions about education programmes to improve nurses' management should be made on a country-by-country basis. It cannot be over-emphasized that decisions about the required knowledge and skill depend on the needs, values, goals, requirements, and resources in a country.

There is wide variation in people's early education and national resources. Therefore, the following provides a set of general guidelines.

Recommended Basic Skills and Basic Education

Because of the problems in the health services, basic nursing programmes should introduce some of the key concepts of management and leadership. Basic training is needed to improve local administration and as preparation for future higher managerial responsibilities. At the lower level, nurses in communities and hospitals are responsible for the performance, supervision, and training of community health workers and auxiliary personnel. Therefore, they should be skilled in engendering community participation, delegating and monitoring performance, motivating others, and coordinating the activities of small groups. It is strongly **recommended** that education programmes prepare nurses who can collaborate with members of health care teams and develop short-term plans for ways to improve care. Nurses are needed who can collect basic information and keep records on people's health problems and their response to medical and nursing care. Equally necessary are nurses at this level who can implement policies appropriately in local communities and contribute to determining organizational policies that guide daily activities.

In addition to basic nursing content, the following is **recommended** for nurses' in junior managerial positions:

1) Include theories of leadership and administration with the topics of basic supervision, delegation, communication, interpersonal relations, and group dynamics,
2) Include elementary content about the national health system and health services to enable young nurses to place themselves, their role, their organization, and community in the larger context of their country's health care system,
3) Include basic content about health needs assessment, health teaching, personnel development, performance evaluation, and health legislation,
4) Design curricula with separate management courses or integrate the management content throughout a programme of study,
5) Require interdisciplinary courses and first-hand clinical experiences that involve faculty and students from several fields to ensure that, from the very beginning, health workers understand the differing values and contributions of those with whom they will ultimately work.

Recommended Middle Level Skills and Post-basic or University Masters Education

Post-basic and university education for middle level positions should be more in-depth and of a wider range. Preparation at this level is for the managerial skills required at the district level and in high-level management positions in large tertiary hospitals. In addition to skills for patient and ward management, nurses in middle level positions should be prepared to supervise groups of nurses and others such as physical therapists and radiology technicians. At this level, effective nurse managers engage in personnel development activities by providing career counselling and leadership training. They are also responsible for improving records and information flow and for creating information systems for the nursing services. At this level, nurses collaborate with others through committee work and taskforces. They also engage in long-term planning. Skill is required for assessing health needs, determining organization structure and policy, then setting goals, and implementing and evaluating the quality and costs of programmes. Nurses at this level also develop standards of nursing practice. They develop budgets for one or several organizational units and evaluate the quality of worker performance, and may be responsible for coordinating intersectoral linkages, most usually those between hospitals and communities, service and education, and medicine and nursing.

The following, therefore, is **recommended** to prepare nurses with middle level skills in post-basic and university programmes:

1) Include theories of management addressing in-depth those of motivation, decision-making, and information processing; also include health care finance; budgeting and accounting; and forecasting,
2) Include content about the national health system and the basis for its organizational structure; emphasize primary health care and include basic principles of personnel management with an emphasis on job analysis, job descriptions, development of equitable salary scales, promotion criteria, and labour relations,
3) Include basic research methods and methods of social analysis such as population demographics, vulnerability analysis, human resource analysis, programme evaluation, and basic policy analysis,
4) Design programmes that include knowledge of advanced nursing, health, and disease in populations, and primary, secondary, and tertiary health care delivery. Include ample opportunity for first-hand managerial experience,
5) Design single discipline programmes with a heavy emphasis on interdisciplinary knowledge-development or multidisciplinary programmes with management, public health, and medicine.

Recommended Senior Skills and University Doctoral Education

Preparation for senior management in national governments requires in-depth knowledge of nursing, health and disease, methods of social analysis, and health systems and their management. With the prerequisite knowledge and skill, nurses in senior positions will be prepared to participate in determining national health policy, strategies, and plans. They will be prepared to participate fully in the development of information systems, in financial planning, and programme evaluation. Nurses at this level should also have strong coordinating skills to ensure that a variety of workers provide quality services in rural and urban communities and hospitals and skills to improve intersectoral linkages.

The following is **recommended** to train nurses with the required skills for national leadership positions:

In addition to the education for middle level management:

1) Include political science and theories of resource dependence,
2) Add comparative health systems, national health planning and financing, policy science, and health workforce development,
3) Include health systems research, biostatistical techniques, principles of health economics, and epidemiology,
4) Design programmes that include the theoretical and empirical bases of nursing and health systems knowledge,
5) Design multidisciplinary programmes with knowledge and practice in nursing and health systems management.

Equity and ethics should be emphasized in nursing education at all levels but nowhere more so than in university programmes. The graduates of these programmes will be in positions of responsibility for ensuring the equitable distribution of resources and services. Content is also recommended that will teach nurse managers to understand the relationships between the public and private sectors and how to improve cooperative efforts. There is a scarcity of resources, especially in the public sector, as the findings showed. Some governments, especially in the least developed countries, have very few resources. Therefore leadership is needed to find additional resources.

A great deal of work for the education of nurses for management has been done in the United States.[81] Some of this can be adapted for other countries. The guidelines prepared by the International Council of Nurses and the Canadian Nurses Association are also useful.[82]

Recommendations for On-the-Job Training and Continuing Education

Training and developing personnel is one of the major managerial functions. Therefore the idea of life-long learning and adult education should permeate nurses' education at every level. Nurses in middle and senior management positions are needed who will promote and coordinate training activities. Some of the required management training in communities and hospitals can best be done by knowledgeable senior nurses. This may be the case especially in some of the least developed countries where there are few nurses who have an academic background and are able to plan and conduct the required programmes. For the academic programmes, an interdisciplinary approach is highly **recommended**. Plans for training should address health needs, learner needs, types and goals of programmes, and their cost and evaluation. In countries where there is little management content in basic nursing education, the subjects **recommended** for on-the-job training include basic leadership and administration, communication, delegation, interpersonal relations, and team-building. The development of standards, performance evaluation, programme evaluation, and budgeting is also greatly needed and therefore highly **recommended** for more advanced continuing education opportunities.

Implications and Recommendations for the Development of Knowledge

As the study findings showed, knowledge-development through research in nursing is in its first stage. A great deal of descriptive research remains to be done. It is unrealistic to expect predictive work. Health and nursing services research is complex and expensive. If study methodologies are unnecessarily elaborate and costly, beyond what is affordable and scientifically appropriate in a country, problems will result. If nursing management research does not address the most troubling health and health system problems, then projects are unlikely to find support. Therefore a **recommendation** is to ensure that nurses' education for research and research in the workplace is relevant to national need and appropriate within the frameworks of not only scientific progress but also of national resources.

Those who plan future studies should bear in mind that governments in many developing countries consider research an unattainable luxury.[77] Developing countries annually spend about 2.5% of their gross national product (GNP) on all research and the equivalent of about $.30 (US thirty cents) per person for health research. This is as compared to about $30 per person in developed countries for health-related studies.[83] The comparative size of these expenditures and the scarce resources for research in nearly all countries underscores the need for nurses to consider not only the scientific merit of their work but also its social benefit and economic feasibility.

In this study, descriptive approaches and programme evaluation were discussed most often. More policy research is anticipated for the future. Carefully conducted programme evaluations and policy research, where feasible, can be beneficial. Both types of research often involve networks of investigators from a number of fields working collaboratively, a feature that can be especially helpful for junior scientists. Programme evaluation is a method for assessing health results. There are four basic elements in evaluation:

1) setting objectives and standards,
2) undertaking an activity,
3) identifying the results,
4) measuring the results.[84-88]

The purpose of programme evaluation is to improve future health service activities and to help gauge the kind of resources that are needed and their cost. Quality assessment and assurance are forms of programme evaluation. Quality in health care is "concerned with the degree to which the resources for health care or the services included in health care correspond to specified standards."[89] The purpose of quality assessment of the health services is to improve their results or effectiveness. Assuring quality involves understanding the health service or system, how services are distributed, the availability and use of resources, the policies that affect the health system and service, and the types of activities that may be necessary to correct any deficiencies.[90] In this study, comparatively little discussion was found about setting standards. Standards are statements of an acceptable level of quality. In nursing, the main

concern is setting and maintaining standards for appropriate nursing education, personnel performance, and nursing service programmes.

Policy research is the study of a fundamental social problem with the specific goal of providing policy-makers with recommended solutions.[91] The focus in policy research is action-oriented recommendations made by teams of investigators from a variety of disciplines. Policy research involves selecting a social problem, analyzing its legislative history, interviewing stakeholders, collecting and analyzing the data for both the statistical and political significance, developing recommendations in a simple, understandable form, and then submitting the recommendations to policy-makers.[91] Hinshaw made the following observations about nurses collaborating in relevant research with implications for health policy.

> "The collaborative model of research links nurse scientists either with clinicians, in the case of clinical policy, or with administrators, in the case of executive policy, for the clarification of the original question, planning, and implementation of the study, and discussion of the use of research findings once the project is completed".[92]

Two types of analyses that are useful for programme evaluations and policy research are those to determine the cost-benefit and cost-effectiveness of programmes. Neither is easy to do in the health services but it is important to understand the basic ideas. Cost-benefit analysis is a method in which all costs and benefits of programmes are expressed in monetary terms and then compared. Cost-effectiveness analysis measures the relative cost of different ways to achieve an objective. The degree of effectiveness is determined by the extent to which a programme contributed to the achievement of objectives and targets for reducing the dimensions of a problem or improving a situation.[2] Both methods can contribute to the efficiency and effectiveness of the health services by improving managers' understanding of the relationship of quality and cost.

Action research is another form of collaborative activity that was mentioned in the study. The action approach is considered beneficial because of the way people are linked together to merge the talents of practitioners and scientists.[93] Scientists who engage in action research examine problems in organizations or total systems hand-in-hand with practitioners. In action research, the scientist is not viewed as an expert conducting a study to simply find facts and make recommendations. Instead, he or she serves as a partner in practice. Action research is appealing because it is a method that is scientific yet practical and exceptionally high in its potential to hasten the development of the investigative and team skills of everyone involved. Several in the study commented that steps should be taken to ensure that nurse managers have a positive attitude toward research. Encouraging action research can be one such step.

A number of other activities suggested in the study were to hasten the development of scientific knowledge for nursing management by internationalizing its scientific enterprise. International research usually is the comparison of a common activity in two or more countries. An increase in international nursing management research may be more feasible in the future as electronic communication improves, information is comparable, and more nurses elect to take part of their educational training in countries outside their homeland. A great deal of beneficial knowledge can be gained by nurses in developed countries from those in the developing about primary health care and managing with scarce resources. And nurses in some developing and least developed countries can benefit from what has already been learned about designing nursing organizations, analyzing human resource requirements, developing information systems, managing complex health systems, and analyzing the costs of nursing. Finding appropriate ways to transfer knowledge from one setting or country to another may also result in better dissemination of research, reported only rarely in the study.

A variety of theories and concepts can be used to guide nurses' management and their education and research programmes. Although some knowledge for nursing management may vary from country to country, much of the theoretical knowledge that seems most useful is similar: it derives mainly from the fields of nursing, management, economics, medicine, and public health. A central concern for educators should be how best to blend and balance the most appropriate knowledge from each of these fields. An

especially important body of theoretical knowledge is development management. This is an applied field for the study of social and economic change in developing countries. The main goal in the development perspective is encouraging activities that lead to self-sustaining dynamics for improved human well-being.[94] As one participant rightly noted, "In developing countries the nursing administration role must be conceived, developed, and implemented in the context of development taking place in the country." Another important body of knowledge is clinical epidemiology. This approach to epidemiology is concerned with the application of epidemiological statistics to the solution of health and management problems in communities, hospitals, and countries.[95]

Concluding Remarks and Recommendations

A great deal more information is needed to fully understand nurses' leadership and management and how these can be improved. International research is difficult and time-consuming. It is often criticized because of the difficulties of comparing activities from different cultures and countries. This exploratory study is a beginning. Several differences and similarities in nurses' leadership and management and the training and research pertaining to these have been identified. The data-based guidelines for education provide a general direction for future planning. When asked in the study validation exercise if this report would be useful for their countries, nearly all those who responded said "yes".

Strong leadership and management are required to reorient the health services to primary health care and to face the new realism addressed by the Director-General of the World Health Organization, Hiroshi Nakajima, in his paradigm for health.

> "Everywhere a new realism is setting in. It is quite clear that resources are not limitless. In the health sector this has forced planners and decision-makers to look at priorities, efficiency, cost-effectiveness and better delivery through the better management of resources, without compromising quality.[96]

The World Health Organization has taken a lead to ensure that nurses develop as managers and leaders for health-for-all activities. Member States have been urged to develop strategies to improve the qualifications of nursing personnel to meet national needs. They have been encouraged to support the appointment of nurses to senior leadership and management positions and facilitate their taking part in national planning.

Throughout the report, recommendations have been made for nurses in service and education. However, nurses' leadership potential will be fully realized when nurses' associations, and other health professions - especially medicine and health services management - as well as universities and national governments, take an active part in bringing about positive change. Several concluding **recommendations** for the professions and governments, arising from the study, are to:

- Encourage and facilitate the development of nurses for community, district, and national leadership;
- Develop and improve education for nursing management at the basic, post-basic, and university levels:
- Provide funding for the advancement of nursing science.

Well-prepared nurses are needed in all countries to improve the efficiency, effectiveness, and equity of the health services. It is apparent that, with assistance, nurses are willing and able to achieve their leadership potential to improve the quality of health services, at a reasonable cost, for health for all.

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ANNEX A

Final Chapter (30) of:

International Administration of Nursing Services*

FUTURE NURSING SERVICE ADMINISTRATION EDUCATION, RESEARCH, AND THEORY

BEVERLY HENRY

THE CONTRIBUTORS** to this book share the belief that many of the problems confronting nurses today are common to nurses through the world. Each country represented has extremely complex problems. But a major premise of this book is that the dilemmas all nurses face are not purely domestic, and that they cannot be adequately solved by the citizens of any single nation. We believe that a science of nursing administration must be international.

THE MANAGEMENT OF NURSING SERVICES

The beginning point has been the problems nurses in management positions find most perplexing in hospital and community settings throughout the world. The five most prominent are (1) the shortage of nurses, (2) the inadequacy of information and support systems, (3) the new models of collaborative practice and education for nurses, physicians, and health care administrators, (4) a near absence of epidemiologic approaches in nursing administration, and (5) limited participation by nurses in planning health services at local, national, and international levels.

Shortage of Nurses

In most regions of the world, there are too few people entering nursing to keep pace with the demand. the shortage seems related to a number of factors, not least of which is the image of nursing as a low-status vocation. Seivwright notes that many schools of nursing have academic entrance requirements that are well below those of other programmes. She continues by stating, "It is still common practice for 'not-so-bright' high schoolers to be counselled into nursing."[1]

Some countries, like those in the Middle East (Saudi Arabia, for example), have traditions regarding the status and seclusion of women that make recruiting nurses from local populations highly problematic. In the United States during the last decade, many more career opportunities generally considered of a higher status have been made available to women - in law, theology, medicine, and engineering, and this, too, has had an impact.

Low salaries, salary compression, and less than satisfying work conditions are also factors. And problems in the workplace that nurses find unsettling are discordant relationships with doctors; the high stress that accompanies caring for the sick, contagious, and dying; and the alienation many feel from work where what they have been taught to believe about basic services is idealistic and far exceeds what is actually possible with the available resources.

The distribution of nurses is another aspect of the shortage. Approximately 26% of the people in the world live in industrialized nations, while 74% live in developing countries. Yet more than 80% of the world's nurses work in

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* Henry, B. *et al.* eds. Charles Press, Philadelphia, 1989

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industrialized states and of these, the majority are employed in large urban centers, leaving rural communities in short supply. There are approximately 65 nurses per 100,000 inhabitants in developing countries, whereas in developed nations the ratio is 175 nurses for every 100,000 persons.(2)

The few entering nursing compared to the number leaving, whether for economic or personal reasons, is especially disconcerting for countries like Botswana, for example, where Ngcongco states that 90% of the health care needs of citizens do *not* require medical intervention. Most of the required health care services can be provided by nurses.

Inadequacy of Information Systems and Support Services

Throughout the world, health care providers, including managers, doctors, and nurses, are often unable to assess organizational and community needs, or to analyze the systems that are already in place, which could in some cases, with slight modification, meet those needs. Faced with an array of computerized and statistical approaches to information, there is confusion with respect to hardware and software alternatives, and uncertainty about applications. The absence or lateness of useful organizational, national. and international data regarding sanitary conditions, treatment modalities, the incidence of disease, and costs, make the possibility of timely improvements almost nil.

Technical, economic, and political factors appear to contribute to the problems of inefficient management information and support systems. In some nations, where advanced information technologies are affordable and available - in Australia, the United States and Canada, for example - nurses are sometimes unable or unwilling to identify the data that are necessary to increase the efficiency of operations under their control. Unclear about their goals and functions, they sometimes mismanage the information they do have, and are reluctant to delegate support tasks to less highly trained and less costly auxiliary workers. And often hospital administrators and doctors, for a variety of political and economic reasons, many of which have to do with control over financial income, do not marshal the data necessary to lower costs of care through the delegation of medical tasks to nurses. At the 1988 World Conference on Medical Education, in Edinburgh, Scotland, WHO Director-General Nakajima challenged the medical profession with respect to the contribution of nurses to the effectiveness of health care.

> There has been a lack of willingness on our part to delegate functions to other professionals. I recall too well situations in some countries where even highly qualified nurses were not allowed to give intra-muscular injections. Sad to say, the only reason for the proscription seemed to have been due to the fact that there was a fee paid to the person injecting. Perhaps it is now the time to rationalize the functions of doctors so that their skills and time are devoted to the special tasks which they have been trained to perform.(3)

The systems-analysis and information-processing capabilities of most health care services lag woefully behind what is needed. Although many requirements for the management of programmes to control communicable disease and prevent chronic maladies have certain uniform aspects throughout the world, it is often the case that each organization and state approaches these differently. The consequent variations in standards and data make the failure to communicate within nations and across national boundaries almost a certainty.

Few Models of Collaborative Practice and Education

Physicians historically have been heavily involved in the evolution of nursing practice and education in most countries. Judging from reports, from Italy and the West Indies, for example, doctors have been among our earliest teachers, supervisors, and, in some cases, our mentors.

But there are countries where the relationships between nurses and physicians have been perniciously contrary. Weak, adversary relationships have often been the norm where health systems policies are those that Roemer, in his chapter, classifies as entrepreneurial and permissive. In countries where doctors and nurses compete for recognition and remuneration, successful models of collaborative education and practice have been less likely. For these countries especially, more concerted effort is needed to find ways of working cooperatively and efficiently in teams.

More effort is needed, too, in countries where the majority of nurses are women and the majority of physicians are men, as is the case in most nations of the world, except for the Soviet Union. Finding ways of functioning as colleagues where relationships between men and women have traditionally been characterized by female subservience, in countries such as Italy, France, Germany, and Spain, for example, requires enormous patience and creativity if inter-disciplinary team work is to be improved and new models of collaborative practice are to be developed.

Good communication is tantamount to high quality care for patients, as we know intuitively, and as the recent research of Knaus, Draper and others has demonstrated.(4) When members of the health care team talk together sharing observations from their unique perspectives about the varying aspects of health and illness for individuals and communities, knowledge expands, interventions are better understood by consumers, and the probability of correct action is enhanced.

When nurses, physicians, and health service managers are educated together in interdisciplinary programmes, the values of each become clearer to others, and the contributions of all are more readily understood and respected. There are problems, however, not the least of which is the day-to-day confusion about roles and the costs of such programmes in terms of the time it takes to coordinate cooperative and synchronized academic activities. Moreover, it is easy to talk blithely about collaborative endeavours that are interdisciplinary when, for most, mastering a single discipline may be the work of a decade, and integrating knowledge for interdisciplinary endeavours may take a lifetime.

Few Clinical Epidemiologic Approaches In Nursing Administration

Nightingale is well known for her impact on the clinical practice of nursing. We read and reread her *Notes on Nursing* and are familiar with her treatise on hospital administration. She is less well known, however, for her use of statistics and epidemiology. Yet Nightingale believed that efficient nursing should be based on observation, experience, valid statistical data, knowledge of sanitation and nutrition, and sound management. In the Crimea, before she cared for the sick and dying, she first organized an effective hospital by using the most compelling of statistical arguments - those related to mortality.(5)

Clinical epidemiology is concerned with the application of epidemiology and biostatistics to the solution of diagnostic and management problems at the bedside, in communities, and nations.(6) According to Evans, the most pressing problem in both industrialized and developing nations is:

> more effective management of health services at all levels. Management in this context involves the evaluation of health needs, rational allocation of resources, and successful implementation of programmes that depend on human service organization.(7)

There is a long, if uneven, tradition in nursing of using statistics, as well as clinical and management knowledge, to analyze social conditions in terms of health care to change public policy and to influence the allocation of resources. Nightingale has provided us with a model where clinical, managerial, political and epidemiologic skills are combined.

Nurse administrators at all levels in organizations and communities need to base their decisions about organizational structures, the services offered, personnel used, and measures of effectiveness and efficiency, on the health needs of the populations they serve, in accordance with the Health for All strategy. Demographic and epidemiologic trends, environmental situations, lifestyles, ethical considerations, the availability of qualified personnel, and economics must all be considered in management decisions.(8)

Nurses - especially those at the first-line and middle administrative levels, where there is little opportunity to interact with executive managers - have been quick to eschew the importance of understanding the economics of health care. Until the 1980s, little attention was paid by nurses to health policy formulation, to the resources needed to implement policies, and to the costs of services. Satisfied to focus primarily on the clinical aspects of care, nurses often shunned responsibility for taking part in policy analysis and financial planning.

Nurses' Limited Participation in Planning

Large-scale planning for health care has met with limited success in most western industrialized nations. People in these countries tend to be oriented primarily to the here-and-now, to the present. Consequently, planning for the future requires active, far-sighted leadership.

Where planning for health services in primary care has been successful, is in Cuba and Costa Rica. In socialist nations of Europe health care planning has also been successful until recently, judging from reports of poor health services and a declining life expectancy in the Soviet Union, for example.

Although nurses' minimal participation in thinking about the future needs to change, few of us believe that plans should be sacrosanct. Ruinous problems have resulted in some countries where large-scale, bureaucratic planning takes precedence over local forecasting and day-to-day reassessment of programmes and outcomes. As Mikail Gorbachev has stated, planning needs to be democratized by having plan-making begin with enterprises where levels of productivity are based on social need determined through direct contacts with consumers.(9)

Resources Available to Address the Problems

In 1978, with the Declaration of Alma-Ata of Health for All by the Year 2000 through Primary Health Care, the independent functions of nurses pertaining to health promotion and maintenance were more widely acknowledged. Nurses in 1989, by virtue of their existing numbers, are in a strong position to move health services beyond the medical sector and into communities and homes where power to improve health and health care is in the hands of the people.

In the United States, in many western European nations, Japan, and south Africa, curative medical technologies designed to treat disease have reaped great economic and social rewards for doctors, drug companies, and manufacturers of automated equipment. Highly complex medical and surgical interventions have become possible with billions of dollars in funding from governments and private enterprises. Although the length of life in industrialized nations has been extended as a consequence, the low quality of life in polluted environments, the increase in chronic disease, and the stress of living in highly competitive societies have diminished many of the strides in modern medical technology.

Nurses today are in a unique position to provide health services that are not currently viewed as within the boundaries of medical science, but which are desperately needed by the populations of industrialized and developing countries. Since the 1960s, the emphasis in some university nursing programmes has been on thinking along new lines, other than those of the traditional medical care system, to understand what is causing the health problems in societies that are gaining, growing richer, and becoming more culturally heterogeneous: Populations are more migratory than ever. Visualize for example, the influx of Southeast Asians to Australia; the high portion of immigrant workers from Turkey in Germany; the *aliyah* to Israel from Yemen; the western specialists imported by oil-rich Arab states; and the war-weary Nicaraguans in Honduras.

Throughout the world, nurses, consumers, and governments are moving to achieve higher levels of Health for All Through Primary Health Care. Some academic programmes have been reoriented, especially in developing countries. But for the most part nurses' unique contributions have not been sufficiently emphasized, as they must be in the future, if more well-qualified people are to be attracted and retained in nursing.

Every professional discipline has its unique language, its jargon, quite legitimately developed to improve and hasten communication among like-minded people within the discipline. Nurse administrators who are leaders are sensitive to the differences in terminologies. They are aware of subtleties and shades of meaning. This linguistic keenness goes a long way toward developing cooperation between nurses and physicians, as it has in Botswana: toward incorporating nurses on executive teams as has been done in New Zealand: and toward building a collaborative model of nursing and medical education like the one at the University of Honduras.

In terms of the goal of Health for All, nurses must not countenance a slippage in educational standards. Much can be learned from Japan about setting and maintaining high standards of academic achievement.

The situation described by Seivwright, where the weakest students are counselled into nursing, is widespread, and nurses must hold themselves responsible. In the name of being humanistic, kind to those who are less talented, generous to late-bloomers, and because of declining enrolments, too many educators, including those who teach nursing administration, have lowered admission standards, thereby allowing nursing education, in some cases, to become little more than watered-down vocational training.

Under such circumstances, is it any wonder we face the problem of attracting sufficient numbers of well-qualified people to nursing? Who should be admitted to the university is a very difficult question. It is one with which every society must struggle. But in terms of what is best for the public, capable nurse administrators in nations throughout the world must engage in the struggle because they are in an eminently strong position to arrest the fall in the level of knowledge. They are in a position to require that students in nursing administration enrol in joint degree programmes, meeting the requirements of nursing schools and schools of management or public health, thereby gaining access to the information and technology in these domains.

There is sufficient evidence that interdisciplinary education of the type suggested makes better use of scarce and costly academic resources. Moreover, it increases the likelihood that nurses, doctors, and managers will understand one another to a greater extent than they have in the past. Thus making more likely the interdisciplinary and intersectoral models so desperately needed. Interdisciplinary studies also have the potential of raising the status of nursing because of a close proximity to more prestigious fields where standards of academic performance have traditionally been higher, where the student bodies are populated more by men than by women, and where knowledge is more advanced.

Nursing knowledge is sufficiently developed: worry lest nurses lose sight of the unique aspects of their profession through mingling with those in related disciplines during their formative years is no longer warranted. New models of collaboration are within our grasp. Great achievements and excellence for nursing is possible through cooperative endeavours.

Excellence, however, must be manifest at every level of nursing. Nursing assistants, technical nurses, and professional nurses each have standards of high performance. Nurse administrators in the past have been prone to think that societies expect, want, and need the services of only those who are highly educated - university-trained

professional nurses, when in fact this may not be the case. In nations where the people have a say about the type of workforce and services rendered, the public appears less and less willing to pay the high bill for health care, which suggests that they may be willing to assume more responsibility for their own health at home, and to value and use the services of auxiliary workers.

Citizens of many countries - both industrialized and developing - appear more agreeable to using the services of auxiliary personnel who work under the supervision of professional nurses. Nurse educators and administrators once again seem amenable to recognizing the supervisory functions of professional nurses so clearly spelled out by Nightingale and to educating nurses at basic (undergraduate) and post-basic (graduate) levels for these functions. Nurse throughout the world are paying more attention to what economists refer to as "allocative efficiency" - getting the most out of the resources that are available.

To rectify the problems of a nursing shortage, inadequate information systems and limited interdisciplinary education, to use clinical epidemiologic approaches for nursing administration, and to improve short- and long-range planning for health services, requires an understanding of health economics, especially by those in executive management. As Gavin Mooney, professor of health economics at the University of Copenhagen, stated in his 1988 presentation at the European conference on nursing in Vienna, "The discipline of economics in health and health care is just as much about delivering good quality patient care as is nursing." (10) All resources - whether we are talking about manpower, information, time, equipment, space, or buildings - are limited. And human wants are infinite. Effective management of health services, therefore, entails making extremely tough choices about what should be done, how, by whom, and who should benefit.

These choices, although difficult, must be made. They are made by nurse administrators who are well-educated, courageous, and willing to be held accountable. Based on the problems and resources that have been identified with respect to the administration of nursing services throughout the world, the following recommendations are made to nurses who manage.

Recommendation One. Develop and sustain multiple strategies to attract, recruit, and retain nurses, including enhancement of the image and status of nurses, and the provision of preferential financial resources.

Recommendation Two. Encourage the development of improved information systems and other support services to enable professional nurses to increase their productivity in their principle work using up-to-date, valid information.

Recommendation Three. Develop collaborative models for the education and functioning of nurses, physicians, and administrators in the health care delivery system.

Recommendation Four. Increase the use of clinical epidemiologic approaches in conjunction with medicine for strategic planning and resource allocation.

Recommendation Five. Ensure that appropriately educated nurses are included as members of all health planning groups and committees at the local, regional, national, and international levels.

EDUCATION FOR NURSING ADMINISTRATION

With respect to nursing administration education, the discussions which follow pertain to (1) the need for long-range planning and manpower studies, (2) guidelines for nursing administration education which can constitute international standards, (3) the nature of academic programmes in nursing administration, (4) the design and placement of these programmes, and faculty qualifications.

Manpower* Planning, Health Needs, and Management

There are few systematic manpower studies and long-range planning projects addressing the number and competence of students who should be recruited for nursing administration. The paucity of planning data is especially problematic in view of the shortage of nurses who can mange, the disproportionately low number for populations with the greatest health needs, and the maldistribution of nurses with rural areas being left under- or unserved.

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* The author acknowledges the sexist connotation of the word "manpower" and substitutes "workforce" and "human resources" where possible.

The upsurge in long-range planning as we understand it today, is a phenomenon of only the last few decades. In the 1980s, it is the rare private sector corporation in Japan, the United States, Canada, Australia, and Western Europe that does not formulate long-range plans. But strategic planning in the public sector, and in health care in particular, is more recent and complex. It is highly essential none the less, as Peter Drucker states with a touch of irony.

> Management has no choice but to anticipate the future, attempt to mold it, and to balance short-range and long-range goals. But lacking divine guidance, management must make sure that these difficult responsibilities are not overlooked or neglected but taken care of as well as in humanly possible.(11)

Planning for human resources helps change the current trends which have not proved effective so that in the future the services provided are delivered to the appropriate segments of the population, using the most efficient work methods, performed by the most appropriate category of worker, and allowing for evaluation of the resources used and the outcomes. Hinshaw stated in her chapter, and it bears repeating

> The important message is that new roles as developed in health care need to be systematically evaluated and studied in terms of their effectiveness on the quality of care for patients and positive impact on building professional practice environments. Because of the resources (money, time, individuals) which are invested in new roles, partially effective and questionable roles can no longer be allowed.(12)

Manpower planning involves continuous, systematic decision making, and measuring results against the resources used, and goals and expectations. Health manpower plans begin with goals - in an organization, a nation, and in the world - for health care. Goals, however, are not always clearly spelled out for a variety of political, cultural, and economic reasons. People in positions of power may deliberately keep goals fairly ambiguous to give those providing services at local levels a wide latitude, or, on the negative side, to avoid being held accountable for outcomes should they prove ineffective. In addition, each culture's orientation to the past, present, and future is somewhat different. The inclination to be fatalistic also varies. In countries where a sense of the future exists, and where it is believed that people can make a difference, setting goals and planning for the long term is more likely. The value placed on centralized government planning and local efforts is a factor as well, as is cost. Useful studies to assess the availability and need for human resources can be expensive.

In the absence of health manpower planning, and of policies that designate responsibilities to categories of personnel, much uncertainty may be generated about what the qualifications and standards should be for students who will eventually work as managers in primary and tertiary settings. In most countries, the national health policy changes from one government administration to the next, depending on the political parties and principles of those elected to office. Although some workforce planning takes place, the education of nurses for managerial positions focuses almost exclusively on preparing nurses to function in hospitals. There are at least 65 master's and 12 doctoral programmes with an emphasis in nursing service administration in universities throughout the United States. Only a small portion of these, perhaps as few as 10%, offer courses in management for nurses in community health agencies, long-term care facilities, and primary care. Yet hospital occupancy rates average only 65% nationwide and are falling, a trend that is expected to continue as hospital costs and the number of outpatient services increases. There is a desperate need for well-educated nurse administrators capable of managing ambulatory and long-term care health services for about 15% of the country's aged are provided in nursing homes where the quality of care is severely criticized by the public.

However, even when policies are agreed on at the highest levels of governments or organizations, changes in the use of nursing resources are not automatic. For example, six years after participants in the 1977 World Health Assembly asked governments to increase the number and use of nurses and midwives in the management of primary health care services, and five years after the 1978 Alma Ata conference - at which the representatives of member countries were encouraged to consider the health need of all populations - nurses in most countries still were not actively involved in the management of health care delivery. Therefore, in 1981, the Division of Health Manpower Development of the World Health Organization convened a group of experts to consider the role of nurses with respect to the goal of Health for All. Five strategies were identified.

- Developing a corps of nurses in each country who are informed about primary nursing
- Including nurses in policy making and administration in all health services
- Changing all levels of nursing education to be sure priority needs of populations are met
- Involving nurses in starting and supporting primary care.
- Doing research on nursing administration, practice, and education to demonstrate and evaluate the contribution of nurses to primary health care.(13)

Future assessments of manpower needs to implement the above strategies for nursing administration, may best be done using the clinical epidemiological model. Clinical epidemiology integrates social, behavioral, and biomedical science. Manpower studies taking an epidemiological approach link the evaluation of health needs with resource allocations and existing and future health service programmes.

Setting goals and making plans, as noted earlier, requires forecasting skill and sound analytic thinking. But it is absolutely imperative that we realize that successful planning demands more than technical, tool-using manipulations. Judgment, courage, experience, and intuition are equally essential. When giving direct care to people, in the absence of systematic data, nurses act on their hunches. In nursing administration, if carefully conducted studies do not exist and if the likelihood of their being done is slim, then we, too, have to use our intuitive know-how and act on our hunches.

Nursing administration, like clinical practice, is both art and science. Vision and leadership, as Veninga emphasizes in his chapter, are essential when it comes to planning for the future workforce. And this is especially true where the cost of systematic studies is prohibitive or where values are antithetical. The epidemiologic model, guidelines from the World Health Organization, from national nurses' associations, and from the international Council of Nurses, may have to suffice if we are to work as effectively as possible with communities and governments to plan for and educate competent workers in a variety of managerial roles.

International Guidelines for Nursing Administration Education

There is little question that guidelines for changes in nursing administration education are necessary. In 1985, Ohlson and Franklin made the following comments.

> Nursing curricula in most countries need to be changed radically to prepare nurses to meet the health needs of the greatest number of people ... Not only must they be taught to give direct care ... they also must be prepared to teach, supervise, and work with various auxiliary personnel and community health workers ...(14)

Dame Nita Barrow, Permanent Representative of Barbados to the United Nations, in 1988 stated

> Changes in curricula are needed in schools of medicine, schools of nursing and other health institutions in order to give priority to primary care and develop the leadership skills and managerial tools required. Such tools . . . include the ability to consider health in the context of development, analyze policies and intersectoral links, manage health information and reorganize health services. They also need to be familiar with analysis and management and manpower needs and training, development of technologies, and alternative methods of financing.(15)

Guidelines with applicability to all nations are necessary for the education of nurses who manage at the first, middle, and executive levels. If we believe that the problems in health care cannot be solved in isolation - on a purely domestic basis by each of our nations - and that the only possible science of nursing administration is international, then a set of guidelines which can serve as standards throughout the world should be formulated. Guidelines such as those developed in Canada should prove useful in this endeavour.(16)

The reasonableness of approaching nursing administration as an international and comparative field is suggested by the findings of management scientists who have examined the usefulness of western ideas. In investigations of administrative theory and practice in developing countries, Kiggundu and associates state that existing management theories focusing on organizational tasks and technologies, which have been developed in western industrialized nations, "fit" developing countries. Where adjustments of theories are needed, however, is with respect to ideas about the relationships between organizations and their environments.(17) Some nursing theories developed in the West have also been found to be universally applicable. The work of Florence Nightingale and Virginia Henderson has been useful to nurses in non-western nations - in Yugoslavia and the Philippines, for example.

A logical beginning point for a set of guidelines which can serve as standards is to identify and use what has already been done and seems to be working. In a world as complex and diverse as ours, no single set of standards will be universally applauded. Nevertheless, guidelines that are helpful worldwide will be based on the premise that whatever we do domestically has international implications, and that one of the biggest changes that affects the lives and work of all of us is the widespread dissemination of information. With existing communications technology, none of our countries, cities and towns, no matter how remote, is shielded from changes taking place elsewhere in the world.

Formulating guidelines to serve as international standards for nursing administration education requires, as Cleveland (18) suggests in his discussion of international governance, that we

- Focus on both the present and future functions of those who manage health services
- Anticipate changing trends in nursing, health, medicine, and management
- Consider our mutual needs for cooperation to assure cleaner environments, security and peace, and safety from atomic hazards
- Value alternatives to hierarchic, bureaucratic organizations
- Hasten the flow of better, more valid and useful computerized data across domestic borders and professional disciplines, and
- Rethink what we mean by equity and citizenship

Programmes and events that should be useful in developing a set of standards include the leadership development programmes held during the 1980s in nations throughout the world, supported by the Canadian International Development Agency, the Norwegian Agency for International Development, the Untied Nations Children's Fund, and the International Council of Nurses; the experiences of the World Health Organization (WHO) Network of Collaborating Centres for Nursing Development, the cooperation among the Western European nations for the advancement of primary nursing and nursing research, and the subsequent recommendations in the WHO Summary Report of the 1988 European Conference in Austria. Once international standards are developed, nurses in every country can refine or create unique concepts, within the context of the more broadly-stated, global guidelines, to give language and meaning to how nurse administrators in each nation are educated, how they think, function, and are connected. Ours is not a vision of homogenized humanity, but one where the best of our differences are identified, valued, and preserved.

The specific knowledge categories within which the guidelines are framed could be those suggested by Kim's four domains of knowledge for nursing administration, nursing requirements, nursing services practice, nursing organization, and environment. Or perhaps merging Kim's with Roemer's categories of public health knowledge would provide a useful structure and mark the terrain and borders of nursing administration education with a public service perspective as Stinson emphasizes in her chapter.

When developing the statements of standards for each country, care must be taken to avoid forcing ideas into well established social forms.(19) Nurses and others, as Kiggundu mentions in his chapter, must beware of the tendency to simply transfer the conceptions of one society to another without an in-depth understanding of their environmental, technological and socio-cultural differences. At Alma Ata, Mahler talked about the tendency to transplant solutions from industrialized countries to developing nations and said our motto should be: "Don't Adopt - Adapt."

Education Programmes for Nursing Administration*

If the goal of Health for All is *not* being met, some of the blame lies with those of us who design the curricula for our schools of nursing, as well as with the graduates. Throughout the world relatively little attention has been paid to educating nurses for management functions. And the few nurses who have managerial skills stay in cities, work in hospitals where salaries are comparatively higher, and focus largely on systems in support of curative medical functions.**

The contributors, however, have not belaboured either of these points: they were taken as givens, as basic problems and fundamental reasons for this volume. It should be noted, too, that an attempt has not been made to delineate highly specialized concepts as is typically done when developing a framework to assure the coherence of an academic curriculum. Instead, the focus is the needs of nurse administrators throughout the world - in communities and when managing care for people in their homes - and the educational strategies required to ensure that those needs are met. The focus is on basic essentials.

There is general agreement that if nurses are to play a more significant role in the development of health policy, then they are going to need a larger and longer-range orientation. They will have to focus on nursing, health, and illness, for societies and specific sub-populations, on health programme implementation and evaluation, and on resource allocation. Special qualities are needed to be successful in policy-formation activities at local, national, regional and international levels. To prepare for these functions, the following overall goals are suggested for educational programmes in nursing administration.

1. Students should understand the nature of decision making and be capable of thinking creatively and solving problems in complex, unstructured situations where few precedents exist, using innovations rather than playing it

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** * The author acknowledges a generous reliance in this section and the one following on the special report in the January-February 1984 issue of the *Harvard Business Review* entitled, "Are business schools doing their job? written by J. N. Behrman and R. I. Levin.

safe. In our programmes they should learn about taking risk when making choices and recognize what it means to be held responsible for the decisions they and those working for them make. They should recognize there is an ethical-moral aspect to every decision and the importance of identifying what this is. A textbook that faculty may find useful on this topic is the one by Burke, entitled Bureaucratic Responsibility.(21)

2. Knowledge should be incorporated in the programmes from the fields of nursing, management, economics, medicine and public health, and from the liberal arts. Nurse administrators need the tools of social analysis. They need to understand how science develops: the characteristics of health services: and the environmental, political, technical, and cultural factors at home and abroad which affect them. An integrative programme like the one established in Canada in 1969 (22), which Stinson describes in her chapter, is recommended because the problems nurses face cannot be solved with nursing knowledge alone. A word of warning, however; the knowledge added to our programmes from other disciplines and professional fields should be guided by foundational concepts which are aligned in a logical way with those in nursing, lest our educational endeavours become little more than pieced-together "crazy quilts," without core, clear purpose, or coherency.

3. Organizational structures where workers become involved through participation and influence the future of the organization should be emphasized. The study of reactions to hierarchy among industrial workers and managers in Italy, Austria, Yugoslavia, Israel, and the United States, by Tannenbaum and Rozgonyi, may be especially useful in this regard.(23)

4. Students also need to be knowledgeable about face-to-face and electronic communication: interpersonal, inter-organizational, and international communication should be emphasized to assure that the interconnectedness of all communities and nations is understood and enhanced. Negotiation also needs to be stressed in the context of varying cultural traditions. Understanding how to bargain, make trade-offs, and reach compromises using a wide variety of resources to achieve one's goals is essential. Preparedness and knowing when to remain stalwart is equally necessary.

5. A balance of public- and private-sector approaches to financing and managing health care also should be found, depending on the extent to which the health services of a nation are largely market-oriented and entrepreneurial (as they are in the United States, Thailand, the Philippines, South Africa, Nepal), welfare-oriented (West Germany, Canada, Japan, Malaysia, and India), comprehensive (Great Britain, New Zealand, Norway, Saudi Arabia, Kuwait), or centrally planned (Soviet Union, Czechoslovakia, China, Cuba, People's Republic of Korea.(24) Even though there is a renewal of interest in market mechanisms around the world, texts like the one by Bozeman entitled, *All Organizations are Public: Bridging Public and Private Organization Theories*, are strongly recommended.(25)

6. A commitment to life-long learning should be fostered. In a world changing as rapidly as ours, the half-life of technical knowledge is rarely more than a few years. Education and learning must take place continually over each person's lifetime. Organizations and societies in which continual learning is fostered will provide programmes and funding for continuing education and on-the-job training and retraining; and home study and distance learning techniques will be used.

7. History and art should be included in education for nursing administration. Students and graduates need to have a "sense of the sweep of history" in health services, and their employing organizations and societies, if they are to bring a holistic understanding to bear on the decisions they make.(26)

Education for the management of patient services should begin in basic (undergraduate) programmes. As Herman Finer stated in his famous book, *Administration and the Nursing Services.*

> Administration will not find its rightful place in the education for nursing unless it is decisively put there, and unless the burden of the practical adjustments are courageously undertaken ... Administration is a power that binds people together in the interest of a common enterprise ... The ground floor of my recommendations is the *basic professional course.* If what should be done at this level is rightly conceived, all the other problems of the other levels will fall into their place.(27)

Controversy in nursing about the management knowledge that should or should not be part of basic training saturates the discussions of educators throughout the world. Some argue that leadership, for example, cannot be taught; that people are born with qualities that propel them to positions of leadership. Others say it should not be taught because it is not a legitimate component of academic disciplines. Conversely, others tensely insist that there should be a leadership course in every programme of study.

Our recommendation is that the nature of leadership should be an element of a separate basic (undergraduate) course in nursing management where introductory information to human relations, communication, and group dynamics is included. Students should also be introduced to such concepts in economics as supply and demand, resource analysis, production, consumption, capital, and investment. Being familiarized with population growth, the relation of populations to resources and forces that determine wages and salaries is essential. Knowledge from philosophy, psychology, and history is also needed. The most illuminating biographies of historical and contemporary figures from all world regions should be required; those of Florence Nightingale, Winston Churchill, the Mahatma Ghandi, Franklin Roosevelt, Golda Meir, Vladimir Ulyanov (Lenin), Joseph Tito, Anwar Sadat, to name a few.

In all programmes, at the basic and post-basic levels, and in continuing education, more emphasis is required on speaking well and writing concisely and clearly. Instructional technologies must be found to develop students' skills to write succinct reports; to prepare memorandums others can understand, find interesting, and be willing to act on; to speak well under pressure when leading groups and when asked to talk extemporaneously. There is little that can sabotage our chances of becoming part of policy-making more than being unable to convey ideas clearly and imaginatively when writing and speaking. Moreover, good writing is essential for scientific accountability. The maxim of Francis Bacon is worth pondering: *Reading maketh a full man and writing an exact man.*

Students in our programmes who aspire to become researchers and teachers of nursing administration should be expected to develop as full and exact people. To enlarge the world views of students - because of a commitment to improved international understanding - required reading should include novels written by great authors from throughout the world. Once again, Finer's suggestions are worth contemplating.

> I do not expect a nurse to become a novelist...I hope only that a nurse will become a better nurse. The path is toward making the mind and judgment of the nurse adequate to the patient. Multiply her hypotheses about human nature and you multiply her capacity to solve problems....It is the novel that can get below the skin when the textbook cannot. The more men and women the nurse meets and is agitated and impressed by, the better prepared will she be to meet more men and women and minister to them in terms of their specific individual selves....Accordingly, it is recommended that during the years of basic education, the student nurse shall be expected to read 37 novels - one a month.(28)

Legendary novels like *Love in the Time of Cholera*, by the Colombian, Gabriel Garcia Marquez, winner of the 1982 Nobel Prize for Literature, should be a part of nurse administrators' education.(29).

Programme Placement, Design, and Faculty

Part of the education for nursing administration should, as suggested earlier, be spent in courses and practicums with students in the fields of medicine and management. Interdisciplinary education is strongly endorsed because of the benefits that accrue to students where learning and life experiences are shared.

Faculty in interdisciplinary programmes also gain. Through their association with others, they take off their disciplinary blinders and "see" reality in ways they may not have before. new insights are gained about the linguistic, ethical, and cultural aspects of nursing administration - an especially important benefit if our aim is to expand nursing administration to a universal field and have an impact on national and international strategies and policies.

Interdisciplinary approaches can also be economical. There is a world-wide shortage of faculty able to teach nursing administration by virtue of their past work experience or academic credentials, interdisciplinary education where courses are taught by teams or specialists - nurses, health administrators, and physicians - makes economic sense.

Faculty are needed who have managed nursing services and who can establish contacts with practitioners in the workplace, thereby enabling students to have the most useful and informative first-hand experiences in clinical settings. Moreover, having educators with work experience also increase the likelihood that research will be done where the most important questions are addressed. Intradisciplinary teams of nurse executives and faculty in nursing administration, as McCloskey has suggested in her chapter, is an excellent idea and one strongly endorsed.

Where possible, faculty should also be encouraged to take a leave of absence and spend time in another country working on joint research projects with educators and practitioners who are addressing problems which are cross-national. Faculty should also encourage students to study abroad. Those students who engage in practicums under the tutelage of nurse administrators in countries throughout the world, can benefit greatly in developing their understanding of other political, economic, and health systems.

There is a growing realization in nursing that travel and international study enhance understanding and trust among people from different societies. The insights that are gained are not only a precondition for additional exchanges of knowledge, but they also provide a foundation for the furtherance of a universal science for nursing.

Louis Brandeis, one of the world's great thinkers, said there can be no true community "save that built upon the personal acquaintance of each with each."

In view of the problems and resources identified for education in nursing administration, the following recommendations are made.

Recommendation One. Support and conduct long-range planning and the development of manpower studies at local, state and national levels using forecasting techniques and the clinical epidemiologic model as a guide to improve understanding of the number and kind of nurses that are needed for management positions.

Recommendation Two. Develop guidelines which can serve as international standards for nursing administration education at the basic (undergraduate), post-basic (graduate), and continuing education levels.

Recommendation Three. Foster intra- and interdisciplinary education - with involvement of faculty from nursing, medicine, management, and public health - for the academic preparation of nurse administrators with clinical nursing and management knowledge.

To summarize at this point, a cross-classification of the major categories of problems in nursing administration and the recommendations for nursing education are shown in Table 30-1.

Problems	Guidelines
Shortage of nurses	Emphasize primary health care and manpower goals, performance, planning
	Develop collaborative education and practice models
	Raise standards of admission and performance
	Use home study and distance instruction
	Develop commitment to life-long learning
	Recruit experienced nurse managers as members of faculty teams
Inadequate information and support systems	Emphasize management information systems and information processing
	Use interdisciplinary faculty with expertise in communication, computers, systems analysis
	Emphasize delegation of responsibility and follow-up of auxiliary workers
	Address technology transfer, socio-cultural bases, international connectedness, and history
Few models of collaborative interdisciplinary practice and education	Develop new, improved programmes using faculty from nursing, medicine, management and public health
	Improve understanding of epistemological approaches to interdisciplinary education, cooperation, negotiation
	Have students from each field in courses with joint practicums in primary health care
	Understand the advantages and limits of hierarchy
Near absence of clinical epidemiologic approaches	Emphasize the assessment of health needs, disease, and environment
	Emphasize economics, statistics, epidemiologic trends and programme planning, implementation and evaluation

Problems	Guidelines
	Balance public and private sector management perspectives
Limited participation in planning	Include population-based forecasting, planning, decision making
	Emphasize citizenship and leadership responsibility, and national and international policy making, implementation, and evaluation
	Encourage inclusion of consumers in health planning through direct contact
	Consider ethical-moral implications of decisions and policies.

RESEARCH IN NURSING SERVICE ADMINISTRATION

The 1985 report of the WHO Expert Committee on Health manpower requirements for the achievement of health for all by the year 2000 through primary health care states:

> There are far too few people with managerial skills at all levels for planning, administration and evaluation of the implementation of national strategies to achieve health for all. However, a majority of countries have recognized that strengthening of health management, and within it the management of health personnel, is a priority activity.(30)

The report continues by emphasizing the importance of research for improved health care management, noting, however, that only small portions of health system budgets are allocated for health services research.

Health services research is the systematic study of the means by which medical and management knowledge is applied to improving the distribution, quality, effectiveness, and efficiency of care.(3) *Nursing service administration research* adds to nursing knowledge as it focuses on the organization and distribution of quality nursing care using efficient and effective management methods for individuals and communities in varying settings and circumstances. In terms of the epidemiologic model, research in nursing administration involves the evaluation of health and nursing care needs, rational allocation of resources, and the implementation and evaluation of programmes in nursing. Bamisaiye of Nigeria has observed that senior nurses in developing countries, although ideally placed to use and conduct research focusing on the nursing services to bring about improvements, do not have the skills and resources to carry out projects. Without the depth of understanding possible through scientific studies, the limited resources which are available are used less effectively and large populations go without health care.(32)

Bergman (33) of Israel, in her discussion of research, identifies three problems; nurses have not identified their research needs and communicated these to people in positions of influence, they are reluctant to read and criticize research, and they are hesitant to use the few valid findings that do exist. She continues by stating that studies of the cost-effectiveness of nursing care modalities are needed, as are master plans for research.

Bergman describes two major roles relevant to research for executive-level nurse administrators. The first is to develop mechanisms to facilitate studies; assuring entry to organizations, providing access to records and key individuals, and gaining financial support. The second role pertains to designing organizational structures to assure that nursing research is undertaken as a regular part of a nurse's job; providing personnel with the time and materials necessary for careful investigations and including research activity in position descriptions.

There is ample evidence that scientific investigations are needed by nurse administrators. It is increasingly apparent, too, that the organization and management of health services has an impact on the well-being of mankind - an insight, as Salmon and colleagues note, that nursing and other professions are only now beginning to recognize.(34)

Standards of Significance for Nursing Administration Research

Significance is usually a matter of degree. Studies are generally thought of as more or less significant. For most research, there is no absolute standards.(35). The goal, therefore, is to describe the multiple dimensions of

significant research, which, when taken together, provide useful criteria for evaluating studies in nursing administration.

Throughout the world, research that is significant in a professional discipline such as nursing should both meet the test of scientific validity, and be useful for solving the problems that practitioners encounter.(36, 37) Nursing administration studies can be conducted for a variety of reasons and audiences, but two are usually most apparent: for science and for practice. A scientific investigation may be primarily intellectual and explanatory, providing valid explanations of theoretically significant phenomena, or it can be primarily practical, analyzing existing practices with the objective of finding ways of improving how, for example, nurses are managing organizations.

The first standard of significance for studies in nursing administration conveys a recognition of nursing as a scientific discipline.

> Nursing administration research should contribute to the development of nursing administration theory.

Two of the recommended standards depict the practical, problem-solving orientation of nursing administration.

> Nursing administration research should focus on problems that nurses can influence.

> Nursing administration research should improve the functioning of the health care system.

Three standards could apply to either the research needs in science or the problems in practice, depending on the terms of reference and audience.

> Nursing administration research should provide direction in the delivery of care.

> Nursing administration research should contribute to the development of nursing administration education.

> Nursing administration research must be relevant to the setting and culture in which it is conducted.

The combined emphasis on inquiry for improved explanation and theories, and on solving problems in practice, is important. It reflects a belief that nursing administration research can serve not only science, but also those in the workplace for whom the effectiveness of organizations is of immediate concern. The six standards indicate that a master plan for nursing administration research should contribute both to theory and practice.

This dual perspective is a view aligned with that of others. Gortner, for example, in her discussion of research for a practice profession stated

> As nurses, we ought to be able to accomplish research in our practice concomitantly with the evolution and verification of nursing theory as a science of practice and concomitantly with research into the educational system that is charged with the responsibility of preparing practitioners. We must move on all fronts vigorously and not allow one to fall behind the other. This is the particularly heavy charge of all service-oriented professions.(38).

To ensure research that is practical yet theoretical, nurse educators and practitioners must spend time together in classrooms and work settings. If investigators are to focus on new nursing and patient-care enterprises, and individual as well as organizational responses to changing patterns of disease and health - rather than on just a few restricted concepts - a dynamic, open, perspective of inquiry for nursing administration needs to be fostered. A limited range of research interests is not appropriate if nurses who manage are to have greater opportunity in the future than they have had in the past of influencing the delivery and policies of the health and nursing services.

In a practice discipline, the tension between scientific need and the usefulness of knowledge is great. But it is one with which nurses must struggle. And we are not alone, as Mechanic's description of the identical predicament for health services administration attests.

> Not only must health services research achieve a level of scientific rigor satisfactory to other professionals who scrutinize its theories and research efforts, but it must also pose issues in ways that appear reasonable to decision makers. Demands for scientific rigor from one's colleagues often interfere with meeting the expectations of simplicity, comprehensibility, and need from the policy makers.(30).

Priority Research

Suggesting research priorities is as problematic as deciding what is significant. The two are closely related because studies undertaken to solve high-priority problems tend to be viewed as more significant. It is essential, therefore, that the recommendations be prefaced with the following comments.

Most importantly, it is acknowledged that a high-priority research topic in one country may be of a lower precedence in another. The goal in prioritizing has been purely to provide readers with beginning guidelines which can be adapted to each unique situation, depending on the domestic health needs, resources, and socio-cultural circumstances. Those contributing recognize the constraints people face and have tried to be sensitive to the differences in cultural values and how knowledge is transferred across boundaries.

With these limitations in mind, priority topics in two categories have been identified. Studies are classified either as nursing administration research, where the foremost emphasis is the behavior of nurses in management positions, their decision making, productivity, and overall functioning; or as nursing service research, where the emphasis is on the components and arrangements of organizational systems; manpower assessment, allocation and evaluation; the quality and cost of programmes of care; and models of professional nursing practice.

The two categories are used to organize the following research topics in a way readers will find helpful. For the remainder of the book, however, the terms "nursing administration" and "nursing service administration" are used interchangeably.

Nursing Service Research. Of high priority are *studies that develop and test models addressing the availability and allocation of nurses, nurse' productivity, and the quality of care that is delivered to consumers.* Research in this category considers the

- Shortage of nurses
- Rationale for predicting the number and kind of nurses that are needed
- Mix of professional and non-professional (auxiliary) workers
- Identification of the care needed by patients and other consumers, and identification of nursing care requirements
- Use of auxiliary workers of different types who can extend the work of nurses in a variety of hospital and community settings, and the
- Use of nurses for primary health care, health promotion and disease prevention.

Also of high priority are *studies that develop and test models to improve understanding of the balance or ratio of quality of care to cost of care.* Research in this category focuses on

- Costing of nursing services
- Developing different models for the ratio of quality to cost. Some of the questions that must be asked are, What services are needed, at a minimum, by the population of interest? What is the financial and human cost of services at varying levels of quality? What can the population afford to pay and what will they pay directly or through taxation?
- Identifying and operationally defining quality-of-care indicators. Included in this category are studies that develop measures of quality nursing and/or patient care, and use multiple indicators including those that are physiological and behavioral.

Priority research will also including *studies that develop and test delivery systems of varying organizational designs which facilitate the provision of high-quality professional practice* and *successful outcomes.* Research pertaining to systems of organization examines

- Organizational structures in hospitals and community agencies where participation in decision making is enhanced--where authority and responsibility are shared at each level of the hierarchy, and
- Systems of organizing that are viable alternatives to rigid bureaucratic forms, and attract and retain high-performing nurses.

Of priority, too, are *studies to investigate the education of nurses for general and specialty roles in relation to societal expectations and resources, levels of performance, and quality of care.* For these, the designing of health care systems to enhance the efficient use of nurses educated at various levels should be considered.

Researchers should also conduct *studies that develop and test organizational models for the effective facilitation of clinical nurse specialists, and examine the influence on professional performance and programmes of nursing care*, considering

- Organizational designs that facilitate specialization, and
- Administrative styles that enhance the productivity of nurse specialists

Other priorities are *studies of factors that enhance communication within organizations and communities, within and across disciplines, and across national boundaries for improved nursing and patient care services, and studies to develop models and programmes for the transition of patients from one health service to another.*

Nursing Administration Research. Of priority in this category are *studies of the relationship of administrative style and the productivity and satisfaction of workers.* Factors to emphasize are the

- Attitudes and satisfaction levels of the workers for whom mangers have responsibility
- Quality of patient and nursing care
- Variations in managerial style by society and culture, the relation of these to values and expectations as well as to level of productivity, and the
- Decentralization of decision making to various categories of workers, and levels of productivity.

Another priority is *studies testing decision-making models for all levels of nursing administration and examining the relationship of decisions to outcomes, including the quality and cost of clinical care.* Special attention should be accorded

- Descriptions of decision processes using models of classical decision making, bounded rationality, incremental approaches, and information processing
- Decision making and organizational designs, and
- Intuition and cognitive process models.

Of priority too, are studies of the characteristics of nurse administrators related to high levels of managerial productivity, which examine such contextual and process factors as personal characteristics, agendas, networks, organizational units and domains, accomplishing tasks, planning, and building and maintaining networks.

Other priorities are studies of the influence of nurses managers' strategic planning on the commitment of co-workers and programmes of care; studies of strategies to motivate workers and increase levels of productivity using the theoretical perspectives of needs, equity, expectancy, goal-setting, behavior modification, and social learning; and studies of leadership. For research addressing leadership, the 1987 text by Doig and Hargrove, *Leadership and Innovation*, (40) and McCall and Lombardo's *Leadership, Where Else Do We Go?* (41) are especially important. Lanara's (42) analysis of the philosophical perspectives of heroism as a nursing value also appears essential for discovering new ways of understanding nurses who are leaders.

Building Theories Through Research

To build useful theories for nursing administration through empirical studies, investigators should be reasonably clear about (1) the functions of empirical research in nursing administration, about (2) the strengths and weaknesses of various methodologies and the appropriateness of each for the research questions being addressed, and about (3) the characteristics of significant theories.

Functions of Research in Nursing Administration. Mechanic (43) describes five basic functions of health-services research which are applicable to nursing administration. The functions are (1) to provide factual information, (2) to test hypotheses, (3) to evaluate programmes, (4) to suggest the costs and benefits of policy initiatives, and (5) to study the problems of implementation and diffusion. In the discussion that follows the functions have been adapted from Mechanic for nursing service administration.

Descriptive Studies and Surveys. Nurses in management positions need factual information to plan for the future. They need to know, for example, how many patients are being cared for, the range of needs for nursing care, the costs of procedures, variations in these by locality, rates of admission, salary schedules of various types of workers, and the like. Much of the data necessary for manpower planning falls into this category, as do consumer

and industrial market surveys. Periodic surveys are needed in most countries to provide descriptive data about the epidemiology of disease in communities, and the case mix in various types of settings.

Hypothesis-Testing Research. Analytic, hypothesis-testing research is also necessary to advance the science of nursing administration. Research serving this function comprises more conceptually complex basic studies whose relevance is less for the short term than for the future of knowledge development in the discipline. Studies analyzing the outcomes of nursing interventions fall into this category. Research that hypothesizes the effects of various types of nursing personnel, performing at varying levels of efficiency, on the quality of care as measured by mortality and morbidity, is an example of research that can be strongly theory-building. Correlation methods, regression models and econometric models that combine history and economic theory are the association and causal methods often used. Edwardson, in her chapter, provides a helpful discussion of effectiveness measures which are useful for hypothesis-testing studies, and for programme evaluation and policy analysis as well.

Programme Evaluation. Nursing administration research also involves evaluating new and on-going programmes. Perhaps the single best example of evaluation studies in the United States is that of quality assurance programmes. The goal of these is to improve nursing practice on a daily basis by collecting data to pinpoint unanticipated problems in practice, and their consequences.

Policy Studies. Although little research qualifying as policy analysis has been done in nursing administration, this too is a function, and one that should be expanded in the future, as many have noted throughout the book. Policy studies apply social and analytic techniques to the assessment of cost/benefit data, usually for governmental initiatives. Studies in this category require a thorough understanding of the problems being addressed, of how policies are made and implemented, and of government. As the education for nursing administration improves, and the right balance of private and public administration theory is struck in curricula, useful policy studies may be forthcoming.

Diffusion and Utilization Projects. Last, there is research to demonstrate how knowledge (ideas, facts and principles) and technology (work methods and industrial operations) are diffused from one setting to another and how they are utilized. Nursing services are provided in a wide variety of settings within any single country. Projects that compare how work is accomplished and how it changes over time, although difficult to conduct, are useful for understanding decision making, responsibility, and leadership. Time-series methods such as moving averages, time-services extrapolation, and the Box-Jenkins method may be appropriate. Understanding the diffusion of technology and knowledge between countries is complex, but this very complexity in the way concepts, for example, are changed as nurses adapt to differing cultures and economies suggests how extremely rich international studies of the diffusion of knowledge may be for future theories of nursing administration. In addition, replication studies to assess how innovations in technology begin and vary in diverse environments throughout the world are needed to improve understanding of nurses managing the health services.

Methodologies for Nursing Administration

To test and build useful theories for international nursing administration, the contributors strongly support research conducted in traditional and non-traditional settings--in communities, hospitals, and homes. Emphasis is placed on the importance of research methods matching the research questions and being appropriate, given the state of knowledge in nursing and in the disciplines from which additional knowledge is selectively drawn. The need for historical and philosophic inquiry is also emphasized. Significant research will consistently synthesize knowledge from multiple disciplines, then manipulate that information from a nursing perspective.

Diverse research methodologies and strategies described as convergent validation or triangulation are encouraged. These approaches share the idea that both qualitative and quantitative research methods should be used to complement the respective strengths and weaknesses of each.(44) In nursing administration, for example, to study the effectiveness of leaders, the researcher could begin with an individual or group interview, during and after which observations of behavior patterns are recorded, and reports of performance, both of the leaders and others, are evaluated. Using this approach, the effectiveness of those being studied is the central focus, but the methods vary, providing the investigator with multiple and independent measures, the convergence of which provides a more valid description of nursing leadership than if a single method was used.

Ethnography, a qualitative method, is important for developing a valid body of knowledge for international nursing administration. Ethnographic methods attend to the context within which diseases occur, health services are

provided and management values and practices evolve. Leininger's (45) theory of cultural care in nursing administration could serve as a starting point.

To hasten the building of strong theories for nursing administration we also need to push for greater predictive capabilities, whenever appropriate and possible, to test the outcomes of nursing practice. In nursing, the causal modeling studies of Hinshaw and colleagues is especially useful in this regard.(46, 47).

Although secondary data have been fairly widely used in management science, as noted earlier, secondary data analysis in nursing is relatively new and also worth considering. This is especially true in view of our need for manpower planning studies. Secondary data analysis, involves using data collected for one purpose, for another. As an example, large-scale demographic data bases generated for a population census by a country's national government could be accessed by nurses to analyze the ages, incomes, education levels, and employment of people with the goal of training or retraining select groups for positions in the health services.

Significant Theories and Research

One of the criteria for determining what constitutes significant theories in sociology that has not often been mentioned in nursing administration is the extent to which a contribution is "interesting." Davis argues that the significance of a theory often has little to do with the research methods used or a theory's verifiability because easily verifiable ideas are soon forgotten. What is remembered is work that is interesting. Interesting theories deny some of the assumptions people hold.(48)

Daft connects research and theory in a memorable way, as quoted in the excerpt below.

> The scientific method is more like guess work, the making up and revising of stories. Storytelling means explaining what the data mean, using data to describe how organizations work. Stories are theories. Theory need not be formal or complex. Theories simply explain why. The "why" is important, and researchers should be creative and ruthless in the pursuit of it (Weick, 1974). The why, not the data, is the contribution to knowledge.(49)

Comparative, cross-national studies in nursing administration that are descriptive, analytic, or evaluative can convey some wonderful stories to the world about nurses' operating and management tasks, about the integrating mechanisms they use, and about present and future collaborative arrangements. International research and theorizing in nursing administration will help people of all nations better understand the "why" in nursing and health services.

Recommendation One. Nursing administration research should be a top priority for nurse managers and educators in positions to generate, facilitate, and utilize the research process and its outcomes.

Recommendation Two. Multiple, diverse research methodologies should be supported, including descriptive, analytic, comparative, and other types of approaches such as policy analysis, programme evaluation, and diffusion and utilization methods.

Recommendation Three. The International Council of Nurses (ICN) should consider forming a special interest group for nursing administration, focusing on service, education, theory and research.

Recommendation Four. All governments and other funding agencies concerned with the organization and management of health services should be encouraged to provide financial support for research in nursing services administration.

THEORY DEVELOPMENT IN NURSING ADMINISTRATION

Accounts of the most highly significant studies consistently suggest that the best, most relevant research has roots in the practical world as well as in the academic, and that it is conducted not for the sake of quick returns and short-term expediency, but for useful, theoretical explanation.(50, 51) In a field where there are very few if any systematic theories, all of the problems that could be investigated seem more or less equal.

Therefore, "Nothing is as practical as a good theory."(52) Kurt Lewin's observation of nearly a half century ago still sums it up best. Theories that are practical help people make sense of what is going on around them and enable them to predict with a degree of confidence what will happen in the future, given what exists in the present.

Sound theories tell interesting stories beautifully and simply.(53) The best and most useful theories represent intelligent surmising, conjecture, and explanation about how to solve problems. They provide "patterns within which data appear intelligible." (54).

Concepts and Theories for Nursing Administration

Nursing as a professional discipline is a young field, and nursing administration is even less developed. The first textbook focusing on theoretical nursing appeared a little more than two decades ago. What some consider the first theory text for nursing administration, by Arndt and Huckabay, was published as recently as 1975.(55) Theories can range from unscientific speculations to sophisticated sets of facts, propositions, and hypotheses. In nursing administration at the present time there are a number of nurses whose work qualifies as speculative. But there is some early research which, if eventually extended, may prove useful not only for practice, but also for the advancement of knowledge in nursing and nursing administration. In these studies, in the literature, and in practice, the concepts of quality, interdependence, caring, health, environment, nursing requirements and nursing organization appear to be foundational for the development of useful theories. Questions, however, that must be addressed are, what criteria should be used to delineate concepts for theories in nursing administration? And, how should the concepts in use and the theories applied or adapted be changed to fit the phenomena of nursing administration?

Compared to nursing, public administration and management science have developed an abundance of excellent research and many useful theories in the public sector, the emphasis on policy analysis, equity, and citizenship has much to offer international nursing administration where an attempt is made to understand what it means to have rights and obligations to the world as well as to one's community and country.

The sub-discipline, in the public sector, of development administration is also useful. Suanes refers to the development perspective in her chapter. Development administration is concerned with providing support for interventions designed to lead people to being self-sustaining in their homes and communities.

In both public administration and management science, principles of human behavior are set forth in the body of knowledge called organization theory. The principles of human behavior are sufficiently basic and can guide research in any region of the world. The concepts identified most often in nursing administration are leadership, motivation, communication, power, roles, organization, technology, and career commitment. The recent research in organizational communication, the dependence aspect of power and resource-dependence, as well as population ecology, suggest additional concepts that may prove useful and empirically testable in the future. Other useful concepts are networks, coalitions, global cooperation, and the idea of the electronic cottage, where work is done primarily at home with workers interconnected by personal computers and telecommunication devices.

As discussed, the concepts of primary care and clinical epidemiology appear to have much to offer a model of international nursing administration. Drawing on the fields of medicine, economics, and public health, clinical epidemiology emphasizes heavily the application of biostatistics for solving management problems at every level - in the home, community, and country. Measurement is relied on for the evaluation of health needs. In order to allocate resources in rational and equitable ways. Programme implementation is also key. The concepts drawn from economics include, among others, those of costs, labour, manpower, consumption, and productivity. Primary care emphasizes many of the same concepts at the individual and community levels.

Bronowski says that science is the "creation of concepts and their exploration in facts."(56) Concepts and the theories of which they become a part need to be examined and developed for the individual, organizational and professional levels. Multiple approaches to theory-building for nursing administration that are inductive and deductive and that begin with concept clarification are appropriate. Middle-range theories of nursing administration are needed that link the administration of nursing services to the care people receive and their health.

International Nursing Service Administration

The model developed in this chapter represents an effort to synthesize a number of factors considered useful for understanding international nursing service administration. This new framework is appealing for a number of reasons.(1) It makes sense to have a model in light of the essential nature of nursing services for the health of all societies, and the related responsibilities and many resources controlled by nurses throughout the world. (2) The framework is consistent with the major recommendations of reputable scientists and practitioners. (3) Yet it is unique - we know of no previous model for nursing administration where there is so heavy an emphasis on medicine, epidemiology, and primary care as there is in this one.

There are three dimension to the model; the contextual factors, the fields for interdisciplinary inquiry and practice, and the spheres of application.

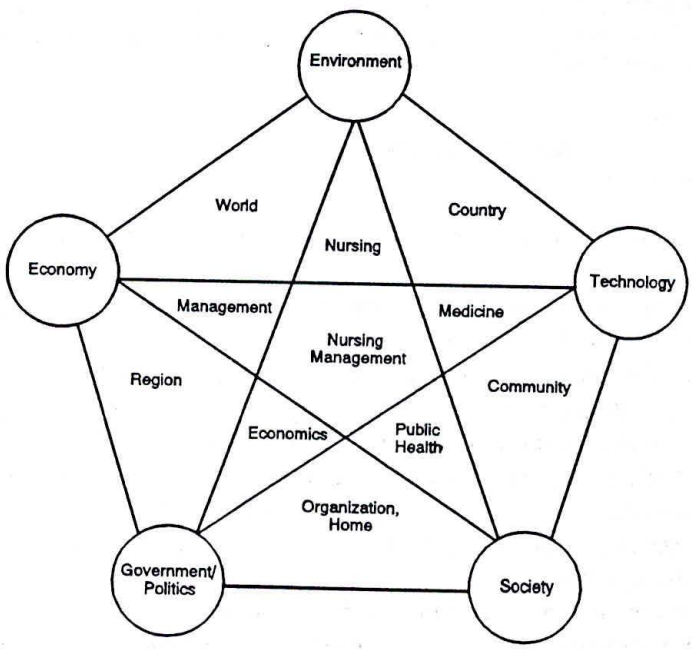
Contextual Factors. The five contextual variables (environment, economy, technology, government and society) have been articulated in some of the professional sciences. In nursing, a great deal of attention has been paid to socio-cultural factors. But there has been relatively little attempt in nursing administration to attend seriously to environments that are external to organizations. We are unaware of any perspectives that comprehensively address intersectoral concerns: the connections between, for example, housing and climate; and the implications of these for the management of nursing services in hospitals and communities.

By no means is it absolute that the five variables and connections are the right or only ones. But that they exist appears to be logical and testable. It seems logical to say that to understand how nurses manage, careful attention must be paid to governments, economies, environments, technologies, and cultures. Analyzing the connection of each with all other factors is equally essential because it illustrates interdependence and where the intersectoral relationships lie. Throughout the world, in all settings, when we conceive of how nurses manage and how nursing services are organized, it is in terms of people's values, available resources, health and disease, environmental threats to which people are exposed, protective or restraining governmental regulations, the technologies and manpower available for work, the costs entailed, and the anticipated level of labour productivity.

Fields for Inquiry and Practice. The second aspect is the representation of the fields for interdisciplinary inquiry and collaborative practice in nursing service administration. Five fields are illustrated at the intersections formed by the lines connecting the contextual factors.

In the five-point figure, the practice and inquiry of nursing services administration is depicted as aligned with medicine, public health, economics, management, and nursing. These disciplines provide fundamental sources of knowledge for nursing administration. Medicine has the needed knowledge of diseases and their cure. Public health and medicine provide the perspective of clinical epidemiology, which also incorporates knowledge of resources and their allocation using theories of economics. Public administration supplies the knowledge about public finance, public service, equity, development administration and citizenship. Business administration improves our understanding of how to balance supply and demand to assure fiscal strength. And nursing provides knowledge of how people respond to illness, how they maintain their health, and how they care for themselves and are cared for.

Model of International Nursing Administration. The contextual variables and fields of inquiry are combined to form the model of international nursing administration. Completing the model are spheres of application: the world, country, region, community, and organization or home.



The model says that the practice and inquiry (education, research and theory) for international nursing service administration is related to and synthesizes knowledge from nursing, medicine, management, economics and public health. Another set of relationship exists for nursing administration between its practice and inquiry and the five contextual variables. Nursing administration is at the hub of these for the management of the nursing services that people receive throughout the world, and in every region, country, community, and organization or home.

Recommendations

Recommendation One. For responsible practice of nursing administration throughout the world, resources should be invested in the development of theory and research in nursing services administration.

Recommendation Two. To develop and improve theories of nursing administration, the relationships with colleagues in related disciplines such as health services administration, public health administration, management science, and medicine should be encouraged, increased, and strengthened.

Recommendation Three. Because theories are usually studied and developed in graduate programmes (advanced post-basic), and since the preparation of theorists and researchers entails advanced education, nursing service administration as a major focus of study should be offered at the graduate university level to hasten theory development in nursing administration.

Recommendation Four. A small group should be established to work on theory development in nursing services administration with similar working groups in each country.

Recommendation Five. Means should be developed for the dissemination of information about theory building research in nursing administration among countries.

* * *

What has been written for this volume represents the initial thinking of people from more than 20 countries, in nearly every major world region, who are extremely interested in how nursing services are managed. Our first-generation effort provides the rudiments of an understanding of international nursing administration.

In the words of Victor Hugo, "Nothing in the world is more powerful than an idea whose time has come." The time has come for the idea of international nursing administration.

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ANNEX B

QUESTIONNAIRE

MANAGEMENT OF HEALTH SERVICES BY NURSES

Name (Print or type in all upper case letters):
Title:
Address:

Telephone:
Telefax:

Your primary professional field (Check one)
_____ Nursing
_____ Medicine
_____ Management
_____ Public Health

Your primary role (Check one)
_____ Education
_____ Administration
_____ Government official
_____ Elected or appointed political official
_____ Research

May we list your name and place of employment in reports and publications?
__ Yes __ No

Instructions: Read the chapter in the blue folder. Then answer each question.
The pages referred to in some questions are in the chapter.
Develop your responses as fully as you can.
Where possible, attach documents describing your country, its health services, and nursing written in English.

NURSES IN LEADERSHIP AND MANAGEMENT

1. What are the senior leadership positions in nursing in your country's organizations, communities, districts, and national governments?

   Do you have a Chief Nursing Officer (or an equivalent) in the Ministry or National Department of Health?
   ____ Yes ____ No

   If you have, briefly describe the main functions of the person in this position.

2. What are the characteristics of your nurse leaders which contribute to their success in the operation of institutions and making health-care policy?

   Include information about their education, skills, attitudes, and connections.

3. How are nurses involved in the planning and policy-making for health services at the community and national levels in your country?

ADMINISTRATION OF HEALTH SERVICES BY NURSES

4. Compared with the problems described on pages 262-269, what are the major problems nurses now in management positions face in your country?

5. What actions do your suggest to overcome the problems you have described above?

EDUCATION FOR IMPROVED NURSING LEADERSHIP & MANAGEMENT

6. What subjects in your country are included at the education levels listed below to prepare for leadership?
   Basic nursing education Post-basic education
   University education Continuing education

7. Do you have Home-Study and Distance Learning Programmes to educate nurses for management? (Check one)
   ___ Yes ___ No

8. How useful are the educational guidelines for nursing administration on pages 272-279 for your country? What would you add or delete?

RESEARCH FOR NURSING LEADERSHIP AND MANAGEMENT

9. Are nurses taught how to conduct research in your country? ___ No ___ Yes

10. Research topics are described on pages 283-288. Which ones are very important for your country? What topics are not important?

11. Which methodologies, as described on pages 285 and 288, are used most often in your country, and which may be used in the future?

12. What further recommendations do you have to improve the research for management of health services by nurses?

THEORIES FOR LEADERSHIP AND MANAGEMENT BY NURSES

13. Describe the theories you think are most useful for improving the administration of health services by nurses for your country. Refer to pages 289-291.

14. A model to understand nursing administration throughout the world is described on pages 291-295. Although we are interested in unique variations by country, our goal is to have a model that is useful for everyone who is interested in understanding nurses' management.

    Does the model summarize the major ideas for nurses who manage? ___ Yes ___ No

    If "No," what would you add or how would you change the picture?

15. Does the model provide a useful guide for the education of nurse leaders and managers in your country?
    ___ Yes ___ No

    If "No," please explain.

ANNEX C

COUNTRIES OF STUDY AND PARTICIPANT DISTRIBUTION DATA

The 76 countries in the WHO Regions were: *Africa*: Cameroon, Chad, Gambia, Ghana, Guinea-Bissau, Kenya, Malawi, Mauritania, Nigeria, Rwanda, Seychelles, South Africa, Togo, Uganda, Zaire, Zambia, and Zimbabwe. *Americas*: Antigua and Barbuda, Brazil, Canada, Colombia, Cost Rica, Ecuador, Haiti, Honduras, Panama, Suriname, Trinidad and Tobago, and the United States of America. *Eastern Mediterranean*: Cyprus, Egypt, Jordan, Pakistan, Saudi Arabia, Somalia, Sudan, and Yemen. *Europe*: Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Malta, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom of Great Britain and Northern Ireland, Yugoslavia. *South-East Asia*: Bangladesh, India, Indonesia, Myanmar, Nepal, Sri Lanka, and Thailand. (The response for Myanmar was provided by a non-national consultant.) *Western Pacific*: Australia, China, Fiji, Japan, New Zealand, Philippines, Republic of Korea, Viet Nam. Responses were also obtained from Bermuda and the US Virgin Islands.

The countries of the respondents by country group, at the time of the data analysis, were as follows. *Least Developed**: Bangladesh, Chad, Gambia, Guinea-Bissau, Haiti, Malawi, Mauritania, Myanmar, Nepal, Rwanda, Somalia, Sudan, Togo, Uganda, and Yemen. *Developing*: Antigua and Barbuda, Bermuda, Brazil, Cameroon, China, Colombia, Cyprus, Ecuador, Egypt, Fiji, Ghana, Honduras, India, Indonesia, Jordan, Kenya, Malta, Nigeria, Pakistan, Panama, Philippines, Republic of Korea, Saudi Arabia, Seychelles, Sri Lanka, Suriname, Thailand, Trinidad and Tobago, Turkey, Viet Nam, Yugoslavia, Zaire, Zambia, and Zimbabwe. *Eastern Europe*: Bulgaria, Hungary, and Poland. *Developed*: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, South Africa, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, and the United States of America.

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* WHO Least developed countries in *World Health,* Geneva, March 1990, p.5.

Study Participants' Fields and Roles

Participants' Professional Fields by WHO Region

Field	Africa	Americas	Eastern Mediterr.	Europe	South-East Asia	Western Pacific	Total	
Nursing	17	20	9	45	27	19	137	(79%)
Medicine	-	-	1	5	-	-	6	(4%)
Management	1	1	-	8	3	3	16	(9%)
Public Health	3	-	-	4	3	3	13	(8%)
Column Totals	21 (12%)	21 (12%)	10 (6%)	62 (36%)	33 (19%)	25 (15%)	172	(100%)

Primary Professional Field of Participants by Country Development Group

Field	Least Developed	Developing	Eastern Europe	Developed	Total	
Nursing	13	70	4	50	137	(79%)
Medicine	1	1	-	4	6	(4%)
Management	1	5	-	9	15	(9%)
Public Health	2	6	-	5	13	(8%)
Column Totals	17 (10%)	82 (48%)	4 (2%)	69 (40%)	172	(100%)

Primary Role of Participants by WHO Region

Field	Africa	Americas	Eastern Mediterr.	Europe	S.East Asia	Western Pacific	Total
Education	11	8	6	17	17	11	70 (41%)
Admini-stration	8	10	3	27	15	10	73 (42%)
Gov. Official	1	1	1	9	1	3	16 (9%)
Elected	-	-	-	2	-	-	2 (1%)
Research	1	2	-	7	-	1	11 (7%)
Column Totals	21 (12%)	21 (12%)	10 (6%)	62 (36%)	33 (19%)	25 (15%)	172 (100%)

Primary Role of Participants by Country Development Group

Field	Least Developed	Developing	Eastern Europe	Developed	Total
Education	6	40	2	22	70 (41%)
Administration	9	36	1	27	73 (42%)
Gov. Official	2	5	1	8	16 (9%)
Elected	-	-	-	2	2 (1%)
Research	-	1	-	10	11 (7%)
Column Totals	17 (10%)	82 (48%)	4 (2%)	69 (40%)	172 (100%)

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