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KEY STAKEHOLDERS' PERCEPTIONS OF  
NURSING HUMAN RESOURCE DEVELOPMENT IN PAKISTAN:  
A SITUATIONAL ANALYSIS

By  
YASMIN NOORALI AMARSI

A Thesis  
Submitted to the School of Graduate Studies  
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for the Degree  
Doctor of Philosophy

McMaster University

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## **KEY STAKEHOLDERS' PERCEPTIONS OF NHRD IN PAKISTAN**

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## **ABSTRACT**

**Title: Key Stakeholders' Perceptions of Nursing Human Resource Development in Pakistan: A Situational Analysis**

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Health human resource development (HHRD), including nursing human resource development (NHRD) is essential for any country. HHRD is an unexplored area of study in Pakistan. In this exploratory study, qualitative methodology was used to obtain the perceptions of key stakeholders on the current situation of nursing human resource development in the Province of Sindh in Pakistan. A conceptual framework organized around the three components of planning, production, and management guided data collection, coding, and analysis. Five year plans (FYPs) (1978-1998) containing national health policies were reviewed to identify issues relating to NHRD. Semi-structured interviews were conducted to elicit key stakeholders' perceptions regarding the current NHRD situation in Pakistan. Individual interviews were held with 34 stakeholders, the majority of whom were from the public sector at the federal, provincial, and local levels.

Data were analysed by generating codes. Nineteen categories emerged from the codes which were clustered under each of the following components: planning, production, and management. Emerging patterns were noted amongst categories and 22

issues within components were identified. The 22 issues were further collapsed into five themes: formulation of policies; planning-implementation gap; supply-requirement imbalance; quality of education; and working environment of nursing personnel. The findings indicated similarities as well as differences in the perceptions of nursing personnel and government officials with respect to the components of HHRD. Homogeneity was found in the perspectives of nursing personnel across levels, with a focus on operational issues. In contrast, divergence was found in perceptions of government officials; the officials at the federal level viewed NHRD from a broad societal perspective, while officials at the local level demonstrated more knowledge and understanding of issues related to NHRD. Findings of this study demonstrated that key stakeholders varied in their understanding of the issues, at both macro and micro levels. The policy review of five year plans indicated clear objectives, but stakeholders identified a policy-implementation gap.

This research has implications for studying HHRD in general and for Pakistan in particular. The study confirmed the value of determining the perceptions of key stakeholders as a first step in HHRD. When selecting key stakeholders, policy makers need to be aware that perceptions differ by level and affiliation of the stakeholder. At the time of policy formulation, input from key stakeholders should be obtained as a means of facilitating implementation of policies. Recommendations for further research were generated from the findings.

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## ACRONYMS

ADB	Asian Development Bank
BHUs	Basic Health Units
CHEPA	Centre for Health Economics and Policy Analysis
CIDA	Canadian International Development Agency
CNA	Canadian Nurses' Association
COHRD	Coordinated Health Human Resource Development
DFID	Division for Funding for International Development
DGH	Director-General Health
DGN	Director-General Nursing
DHS	Director-General (or Director) of Health Services
DWHP	Development of Women Health Professionals Programme
FYP(s)	Five Year Plan(s)
GDP	Gross Domestic Product
GNP	Gross National Product
GOP	Government of Pakistan
HDI	Human Development Index
HHRD	Health Human Resource Development
HMTP	Health Manpower and Training Plan
HRD	Human Resource Development
ICN	International Council of Nurses
IDA	International Development Association
IHHRDP	Integrated Health Human Resource Development Project
ILO	International Labour Office

JICA	Japanese International Cooperation Agency
LHV	Lady Health Visitor
LPR	Labour Participation Rate
MCH	Maternal Child Health
MOH	Ministry of Health
NHRD	Nursing Human Resource Development
NIPS	National Institute of Population Studies
NWFP	North-West Frontier Province
PNC	Pakistan Nursing Council
PNF	Pakistan Nurses' Federation
RHCs	Rural Health Centres
RM	Registered Midwife
RN	Registered Nurse
SAP	Social Action Program
SHARP	System for Health Area Resource Planning
SON	School of Nursing
SNE	Scheduled New Expenditure
UKCC	United Kingdom Central Council
UN	United Nation
WB	World Bank
WHO	World Health Organization

## CHAPTER 1

### INTRODUCTION

Health human resource development is the key to an efficient and effective health care system in any country and plays a predominant role in the socioeconomic and technological development of nations (Ghafoor, 1984). The ultimate goal of human resource development (HRD) is to improve the quality of life of all its people (Bacchus, 1991). Human resource development has three major components: planning, production, and management (Bacchus, 1991; Hall, 1993; Hall & Mejia, 1978). Health human resources include all persons engaged in any capacity in the production and delivery of health services. In current times of economic restraint, health human resource development strategies are developed or reexamined to ensure more efficient, effective, and equitable provision of health services. Reorganizing and restructuring of health human resources is a complex phenomenon which requires commitment, political will, well-qualified staff, and sufficient resources, as well as being dynamic in nature (World Health Organization [WHO], 1990). Health human resource development (HHRD) historically has evolved from an emphasis on increasing numbers of health personnel to improving their quality.

Within any health care system, registered nursing personnel<sup>1</sup> are important human resources (Brihaye, 1994; Cowart & Serow, 1992; Hancock, 1992; Reid, 1992). They usually constitute one of the largest groups of health professionals (Stelling, 1994), and make up approximately 70% of the total health service workforce (Buchan & Ball, 1991; Hancock, 1992; Tierney, 1993). Timely and reliable data on nursing personnel numbers, mix, distribution, and characteristics are essential for monitoring trends in the health care delivery system. Abdellah and Levine (1994) suggested that to make full utilization of existing technologies and resources in achieving effective patient care, research on nursing human resource development be considered a priority for the 21<sup>st</sup> century.

The Coordinated Health Human Resource Development (COHHRD) (WHO, 1990) model is one of the few models recommended for development of comprehensive HHRD plans at the macro or country level. It addresses all three components of HHRD. The model emphasizes the importance of coordination between development of health services and health human resources. Hall (1995), in his 'tool kit', expanded on this model and provided the list of variables under the planning, production, and management components. In addition he developed guidelines for conducting a situation analysis of HHRD, which include a policy review and determining the perception of key stakeholders. Hall further encouraged the use of the guidelines in developing countries to determine their suitability.

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<sup>1</sup>In Pakistan, nursing human resource includes Registered Nurses (RNs), Registered Midwives (RMs), and Lady Health Visitors (LHVs).

Although recommended by Hall (1995), a literature review did not reveal studies that used Hall's tool kit or focussed on perceptions of key stakeholders. The perceptions of key stakeholders are important because their values and beliefs play an important role in planning of health care, in making decisions, and formulating policies regarding HHRD (Hall, 1995). The significance of culture, values, and societal norms for understanding a complex social phenomenon has been increasingly acknowledged by planners of human resource development (Hall & Mejia, 1978; Kazanjian, 1995; WHO, 1990).

A rudimentary form of human resource development existed in Pakistan at the time of independence in 1947. Pakistan has achieved a substantial rate of growth in its economic and agricultural sector over the last three decades, but the quality of life among its people has not corresponded to the economic growth (UNDP, 1993). Of Pakistan's total government expenditures, allocations for education (1.6%) and health (1%) are low, while the allocation for military (27.9%) spending is high. The social sector allocations are among the lowest when comparing Pakistan to other developing countries.

To date, Pakistan has not been able to develop effectively its human resources in the field of health. Consequently, HHRD has generally remained inadequate. This is illustrated by imbalances in production as well as in the distribution of health personnel, and a skewed staff mix. Imbalances in distribution of health personnel is evident in that only 17% of all health professionals are employed in rural areas where 70% of the population reside; the number of professionals is insufficient to meet the needs of the population in the rural areas (World Bank, 1993c). Further, the health care system is

characterized by a predominance of physicians, an orientation to curative services (French & Herberg, 1995), poor management of health personnel, and a centralized bureaucratic system.

In Pakistan, the federal government provides the policy guidelines but implementation of public policies relevant to social development, including health, are provincial responsibilities. Since 1973, human resource development (HRD) policy has been consistently documented in five year plans (FYPs) and the national health policy of 1990. The policies have primarily emphasized the numbers and type of health care workers and neglected factors such as quality of education and improvements in the work environment. While HHRD policies have addressed all health personnel, implementation has generally focussed on increasing the number of doctors; the supply of nurses and other female cadres have lagged behind (Government of Pakistan [GOP], 1995).

In the 50 years since Pakistan obtained independence, the number of nursing personnel has increased but it has not kept pace with the increased demand. The increasing demand for nurses is associated with rapid population growth, advances in health technology, shift in the patterns of diseases, rising social expectations, and rapid growth of the health industry (GOP, 1995). A major challenge to the health sector in the country is inadequate nursing human resources which has persisted for the last five decades (GOP, 1995; Wazir Ali, 1993). Nursing continues to face critical problems, both in the quality and in the number of trained nurses. The Economic Survey of 1995-1996 shows 22,531 registered nurses (RNs) and 69,694 registered physicians for a population of approximately 133 million. This works out to one physician for every 1,837 persons



and one RN for every 5,681 persons. In contrast, Brihaye (1994) reports a ratio of at least three nurses per 1,000 persons in the developed countries and one nurse per 1,000-5,000 persons in the developing countries.

World Health Organization (WHO) (Ministry of Health (MOH), 1992) and Asian Development Bank (ADB) (1992) consultants emphasized the absence of accurate and reliable data on: distribution and utilization of nursing staff; nursing human resource flows; and number of available registered nurses. Zaidi (1988) explains the contradictory nature among numerous inconsistencies in government published data. "Thus the extreme unreliability of data...makes analysis suspect, and can often lead to manipulation of the statistics to suit one's own purposes" (p. 171). A situational analysis would provide further understanding of the complexities of health human resource development.

Issues that provided impetus to this study were: lack of reliable data on the various dimensions of human resource development in general and on NHRD in Pakistan in particular; and the dearth of studies which address all components of HHRD. Health human resource development is a major challenge in any country, but more so in developing countries such as Pakistan. Pakistan has specific characteristics such as a centralised bureaucratic system, gender disparity, financial constraints, absence of unions, and political instability.

The purpose of the study was to explore the key stakeholders' perceptions of the three components of NHRD in the Province of Sindh, Pakistan. The thesis has seven chapters with the first chapter providing the introduction to HHRD and NHRD, and the purpose of the study.

Chapter 2 provides information on the context of HHRD in Pakistan. An overview is provided of the country's political and administrative systems, the socioeconomic and educational sectors, cultural trends and the status of women, the impact of external donors, the health status of the population and the health system, general issues in the health sector, and the impact of health policies. Implications for HHRD are identified.

Chapter 3 contains a literature review on health human resource development (HHRD), including discussion on selected models of HHRD and nursing human resource development (NHRD). The review includes information on HHRD and NHRD in Pakistan. The rationale for using Hall's (1993) guidelines for HHRD, expanded from the COHHRD (WHO, 1990) framework, is provided. The literature on nursing human resource is limited with studies carried out in North America, and not generalizable to developing countries such as Pakistan. Selected articles were reviewed to provide relevant information on NHRD. A brief overview is presented of policies on NHRD contained in the Pakistan Five Years Plans (FYPs). The chapter reiterates the purpose of the study and the research questions to be addressed.

Chapter 4 presents the research methods used to conduct the study. The study design and the study procedure are discussed. The study procedure contains descriptions of: the sample (sampling strategy and sampling frame); key stakeholders; the development of an interview guide; and the process of data collection; data management; and data analysis. The manner in which the components of the framework guided coding of data, display, and analysis is presented. Limitations of the study are addressed.

Chapter 5 presents the findings in relation to the research questions. The perceptions of key stakeholders regarding the planning, production, and management components of NHRD in the Province of Sindh, Pakistan are presented. Issues and themes are identified in relation to planning, production, and management aspects of NHRD. The similarities and differences of perceptions between stakeholders at various levels and of different affiliations are presented.

Chapter 6 presents the discussion on the findings in relation to the five major themes, and the similarities and differences in perceptions among the stakeholders. Based on findings, an enhancement of the schematic presentation of the COHHRD model is recommended.

Chapter 7 contains the summary and conclusions of the study. Implication of the findings and direction for further research relating to HHRD and NHRD in general and in Pakistan are presented.

**CHAPTER 2**  
**BACKGROUND TO HEALTH HUMAN RESOURCE DEVELOPMENT**  
**IN PAKISTAN**

The World Health Organization (WHO) recommends that health human resource development (HHRD) “takes place within a context of interdependent social, educational, political, and cultural influences” (WHO, 1990, p. 25). This chapter presents a synopsis of the socioeconomic, cultural, and political background to HHRD in Pakistan. It includes a concise overview of the health situation in the country and related issues. Information on its political and administrative systems, socioeconomic and educational dimensions of society, demographic patterns and trends, cultural trends and status of women, impact of external donors, and current health situation is provided. The chapter concludes with a summary of the characteristics of Pakistan which have implications for HHRD in the country.

Social influences are those factors that occur within communities to which people belong and the people’s interactions with each other (Black, 1991; Khan & Zia, 1995; Wilber, 1988). Educational influences refer to the quality of the labour market availability of a human resource pool (UNDP, 1993). It includes important indicators such as literacy rate, education of female children/women, applicant pool, potential

recruits, supervisors, colleagues, subordinates, and clients (WHO, 1990). The political influences deal with the way the society is governed and the way power is allocated, shared (or not shared), and transferred (Black, 1991; Khan & Zia, 1995). Cultural influences reflect people's collective ways of thinking, including meanings they attach to various aspects of life, their world view, and their values and beliefs. HHRD in a society is deeply influenced by its culture; the actions of people cannot be coordinated without understanding their values and beliefs (Black, 1991; Khan & Zia, 1995; WHO, 1990).

### **Overview of Pakistan**

A country with a population of approximately 133 million, Pakistan comprises an area of 852,392 square kilometres. It is located on the Arabian Sea between India and Iran in the south, and bordered by China and Afghanistan in the north. The country is comprised of four provinces: Baluchistan, North-West Frontier Province (NWFP), Punjab and Sindh, the Northern Areas, and Jammu and Kashmir (see Appendix A, map of Pakistan).

A desire to create a separate country for the Muslim population of British India led to the creation of East and West Pakistan in 1947, with a large migration of Muslims from what was to become India. In 1971 after a civil war, East Pakistan separated to form the independent country of Bangladesh. Pakistan is predominantly a Muslim country (98% of the population) (National Institute of Population Studies [NIPS], 1992). Although the majority of the population is Muslim, it is not a homogenous group. There are two major sects within Islam: Shias and Sunnis. Several subcultures exist within

these two primary sects, each with different cultural background, values, and beliefs. In addition, the population consists of numerous ethnic groups within each province such as Balochis, Mohajirs, Pathans, Punjabis, and Sindhis. Perceptions of health and use of health services vary significantly from one sect to another, and the religious and ethnic mix has major implications for HHRD. For example, education for girls is less common within Balochi communities and there is a limited number of Balochi women in the health professions.

While Urdu is the most commonly spoken language, multiple languages and dialects are used throughout the country (UNICEF, 1992). English is widely used for instructional purposes in higher education, including professional institutions, as well as commercial, legal, government, and official businesses in the country.

### **Political and Administrative Systems**

After a turbulent political history, Pakistan currently is a multi party, parliamentary democracy with a National Assembly, Provincial Assemblies, and a Senate at the National level. The Constitution of Pakistan specifies the responsibilities of the federal and provincial governments (UNICEF, 1992). The federal government is responsible for much of the provinces' development budgets, whereas the recurrent or non-development budgets are the provinces' responsibility. The majority of public policies are formulated at the federal level under the Planning Commission. The federal government provides policy guidance, but implementation of public policies relevant to social development such as education, health, water supply, and sanitation are provincial

responsibilities. The current split of responsibilities is seen as unsatisfactory from the standpoint of both the federal and provincial governments. Federal authorities lack influence at the local level, and the provinces do not have fiscal control. Provinces feel little programme ownership as they have limited input in setting programme goals. Centralized planning and decision making impedes provincial departments from adequately responding to field conditions. Ambiguity in federal-provincial relationships also leads to confusion and duplication of technical responsibilities (Rosen & Conly, 1996). Other democratic countries such as Canada, with a similar government structure, have more clearly delineated responsibilities between provincial and federal departments with decision making and programme planning more decentralized at the provincial level.

Pakistan and India were ruled as one country by the British until 1947 when Pakistan achieved its independence (Zaidi, 1988). Since its independence in 1947, Pakistan has faced several periods of instability due to natural disasters such as floods and famine and political unrest. Pakistan has also been involved in three wars with India. Difficult relationships between India and Pakistan have resulted in high defence spending, leaving scarce financial resources for the social sector, including health. In addition, the presence of about 3.5 million Afghan refugees (the result of Russia's invasion of Afghanistan and ongoing civil disturbances) has placed an additional burden on the country. Associated with this large refugee population has been an increase in drug abuse, free flow of arms and ammunition resulting in increased violence, as well as accidents and stress due to insecurity (Nasim & Akhlaque, 1995).

Within Pakistan, politics in the rural areas are dominated by elite groups such as feudal landlords, tribal chiefs, and religious figures (Bhatia, 1990; UNICEF, 1992). The dominance of landlords stems from their almost total ownership of land; a key issue to development (GOP, 1995). Access to resources for landless households is often through such elites. Some of these elite groups have developed their own infrastructure of facilities such as health centres, schools, and jails for their workers, over which they maintain tight control. General elections in the country were avoided “because the ruling elite didn’t feel confident of being able to get a fresh mandate from people to continue in power” (Bhatia, 1990, p. 15). The result has been an increase in the political power of the civil-military bureaucracy which perpetuated the power of the ruling elite. From the birth of Pakistan, the military began sharing power with the civilians and alliances were built between the civilian and military bureaucracies (Bhatia, 1990).

Pakistan’s political history is characterized by two interlinked factors: (1) the role of military in politics, and (2) the significance of ethnicity as a tool of political, economic, and social mobilization (Kennedy & Rais, 1995). The interrelationship of military intervention and ethnicity has shaped Pakistani politics to the extent of challenging the viability of the state. Kennedy and Rais (1995) further explain that the legacy of military dictatorship has caused “deliberate destruction of political institutions, a culture of conformity, political intolerance, erosion of the rule of law, and a pervasive sense of political immorality and illegitimacy” (p. 13).



### **Socioeconomic Dimensions**

Pakistan has achieved a substantial rate of growth in its economic and agricultural sector over the last three decades with its Gross Domestic Product (GDP) growth rate averaging 5.8% from 1985-1990. During the 1980s, Pakistan was the sixth fastest growing economy in the world (GOP, 1996; NIPS, 1992). Despite its per capita income, which compares favourably with some of the developing countries such as India and Bangladesh (Table 2.1), Pakistan is still classified as one of the low income countries of the world. It has made only marginal improvement in development of its social indicators, particularly in the fields of health, education and women's development, which are among the worst in the world (Delvoie, 1993). The quality of life among its people has not corresponded to the economic growth (UNDP, 1993) as the country has not translated its economic progress into human development. In comparison with other countries in South-East Asia, budget allocations for the social sector in Pakistan have remained consistently low. As indicated in Table 2.2, Pakistan's allocation for education (1.6%) and health (1%) are the lowest among the listed developing countries such as Bangladesh and Nepal. Allocation for military spending is the highest among these countries. These budget allocations are indicative of the value placed on the social sector by the policy makers and decision makers. In contrast to Pakistan, industrialized countries have placed high value on education and health and have allocated higher percentages of the budget to these sectors.

**Table 2.1**  
**Key Social Indicators for**  
**Pakistan and Selected Countries**

Country	TFR	PGR (%)	IMR (1,000)	GNP (US\$)	FLR (%)	MMR (100,000)	Contraceptive Use (%)
Pakistan	5.9	2.9	95	430	21	600	18
Bangladesh	3.4	2.2	94	220	22	650	45
India	3.4	1.9	81	300	34	420	41
Indonesia	2.9	1.6	71	740	75	400	55
China	2.0	1.1	35	490	68	95	83
Egypt	3.9	2.2	46	660	34	266	47
Kenya	5.4	3.6	61	270	59	500	33
Canada	1.8	1.3	6.2	20,510	96	7	73
USA	2.0	1.0	7.6	22,340	80	13	74
UK	1.9	0.2		16,600	79	11	81

TFR = Total Fertility Rate

PGR = Population Growth Rate

IMR = Infant Mortality Rate

GNP = Gross National Product

FLR = Female Literacy Rate

MMR = Maternal Mortality Rate

Source: Adapted from Rosen, J. E., & Conly, S. R. (1996). Pakistan's population programme: The challenge ahead (Country Study Series No. 5, p. 13). Washington, DC: Population Action International.

**Table 2.2**  
**Government Expenditure (% of Total)**

Country	Defence	Education	Health	Social Welfare	Economic Services
Pakistan	27.9	1.6	1.0	3.4	11.6
Bangladesh	10.1	11.2	4.8	8.0	43.4
India	17.0	2.5	1.6	6.9	20.8
Indonesia	8.2	9.1	2.4	1.8	27.1
Iran	9.6	20.9	7.9	15.5	16.1
Nepal	5.9	10.9	4.7	6.8	43.0
Philippines	10.9	16.1	4.2	3.7	24.7
Sri Lanka	9.4	8.3	4.8	18.4	24.6
Thailand	17.1	20.2	7.4	5.9	24.3
Canada	2.0	7.4	9.9		
USA	5.1	7.0	13.3		
UK	4.2	5.3	6.6		

Source: Adapted from World Bank. (1993a). World development report 1993. Washington, DC: The World Bank and Oxford University Press.

Besides low value placed on the social sector, the higher allocation for military spending in Pakistan could also be attributed to reasons such as its geographical position and dependency on external sources due to underdevelopment (Nasim & Akhlaque, 1995). During the Cold War, the strategic position of Pakistan was seen as important and aid poured into the country from developed nations such as the United States. The dependency of Pakistan was reinforced to the extent that external forces controlled the development in the country. In discussing the theories of development *dependentiatus*

(dependency theorists) see foreign aid as contributing to a distorted pattern of growth that exacerbates inequalities among classes, in which elites are supported and nurtured, while the masses remain impoverished (Black, 1991; Frank, 1988; Hellinger, Hellinger, & O'Regan, 1988; Wilber, 1988). Furthermore, dependency contributes to instability in the country because of such inequality (Black, 1991).

Social indicators are directly proportionate to the government's budget allocation. Pakistan ranks 134<sup>th</sup> out of 174 countries on the Human Development Index (HDI), which uses life expectancy, education, and income as the three measures (UNDP, 1995). It also ranks lowest in the South Asian region in most of the gender-related human development indicators (Mahbub ul Haq, 1997). It has been estimated that 30% of the population lives below the poverty line (GOP, 1995). In contrast, Canada ranks at the top followed by the United States as eighth and the United Kingdom as tenth on the HDI.

The country's economy has undergone structural change, from a predominantly agricultural economy in 1947 to a semi-industrial economy today. Agriculture contributes roughly 24% to the GDP, while manufacturing's share is 19%. Their contribution to employment is 48% and 26% respectively (NIPS, 1992). The demand for skilled, semiskilled, and non-skilled labour in the Middle East has attracted thousands of Pakistanis to these countries. Labour migration to the Gulf States and industrialized countries has been an important source of foreign earnings (Abella, 1997; UNICEF, 1992).

The labour participation rate (LPR) of the country is estimated to be 30%; in 1990 51% of the population was of working age (UNICEF, 1992). Official estimates place the

national unemployment rate at 5.8%, urban unemployment at 7%, and rural at 5.4%.

According to an Asian Development Bank (ADB) (1992) report “unemployment is significantly underestimated and does not take into account underemployment” (p. 158). Underemployment of the labour force is partly due to inadequate education and training. The inadequate supply of trained human resources contributes to a low rate of industrial and technical development and the overall outcome is reflected in the marginal means of subsistence for the majority of the population (NIPS, 1992). This pattern of employment and use of human resources is one of the challenges of the country and makes it of interest to study within the HHRD context.

### **Educational Dimensions**

Education plays a critical role in promoting the cultural, social, economic, and political development of a country. As Lockheed (1991) states:

Education improves income distribution, increases savings and encourages more rational consumption, enhances the status of women, and promotes adaptability to technological change...a diverse body of literature demonstrates that the adults in developing countries who have a higher level of educational attainment have more paid employment, higher individual earnings, greater agriculture productivity, lower fertility, better health and nutritional status, and more modern attitudes than adults who have lower educational attainment. They are also more likely to send their children to school. These characteristics are dimensions of development (p. 2).

There is a marked difference in basic education between Pakistan and other low-income countries (Rosen & Conly, 1996). The current overall literacy rate is 37%, with

female literacy approximately 21%; among rural females the rate was reported to be as low as 0.8% in rural tribal areas (GOP, 1996). Official estimates of total enrolment in the primary schools indicate not only low enrolments among girls, but also high dropout rates, particularly in the rural areas (World Bank, 1994).

### **Demographic Patterns and Trends**

Pakistan is the ninth most populated country (NIPS, 1992) with an annual population growth rate of 3.1%, one of the highest in the world (World Bank, 1993c). Currently, 3.7 million people are being added annually to the existing population; 9.4 babies are born and 2.4 deaths occur every minute (GOP, 1995).

Approximately 70% of the population lives in rural areas. The urban population has been steadily increasing since the 1960s (about 4.4% a year); this unplanned urban growth has led to pockets of severe urban poverty (World Bank, 1993c). Official estimates indicate that if the population of Pakistan continues to grow at its present rate, it will reach more than 148 million by the year 2000, a ninefold increase in the century compared to the world population increase of fourfold over the same period (World Bank, 1991).

High population exerts strong pressure on social facilities such as education, health, sanitation and water, and on the environment through excessive congestion in urban areas (UNDP, 1993). Employment opportunities also become limited because of the increase in those eligible for the labour force. The country's population is predominantly young, resulting in a high proportion of a dependent population; 50-60%

of the population consists of persons less than 15 (46%) years of age and women in the childbearing period of life (GOP, 1995; World Bank, 1991).

### **Cultural Trends and Status of Women**

Although the constitution of Pakistan guarantees equal protection for women and men, the realities illustrated in the country's law and dictated by social norms present quite a different picture. Shaheed and Mumtaz (1990, p. i) describe the cultural norms in Pakistan:

Gender specific roles are very clearly demarcated by culture: women are responsible for the reproduction of the society and servicing this collective within the home, men are responsible for their families' financial and physical needs and carrying out chores outside the household... women's mobility is greatly restricted, early marriage for girls encouraged, and women's employment in remunerated activities negatively valued. To facilitate the maintenance of 'honor' codes, society operates according to the rule of purdah: gender segregation and female seclusion.

These socio-cultural constraints negatively impinge on women's human resource potentials and their economic progress (GOP, 1991; Lim & Coenjaerts, 1993). Saeed (1990, p. i) further explains the phenomenon:

Attitudes and perceptions, deeply rooted in patriarchal social traditions, shape behaviour patterns toward women, cast their shadows on legislation and colour value judgements involving women. It is mostly the men who interpret religious injunctions as set out in the Quran. Thus male conservative perceptions and whims hold sway, even though many of the practices these give rise to are contrary to the injunctions of Islam.

The injustices perpetuated by social and traditional norms are reinforced by discriminatory laws such as the Hudood Ordinance. Pakistan is one of the few countries in the world where women are prosecuted for adultery and after reporting being raped, condemned to death by stoning if unable to produce four male witnesses. This has also resulted in the imprisonment of thousands of women on charges of adultery (Canadian International Development Agency [CIDA], 1995; Mahbub ul Haq, 1997; Rosen & Conly, 1996).

In addition, motherhood poses a great risk to a woman's life as many of her potential illnesses are pregnancy related. Only 24 out of every 100 pregnant women have access to a health professional for childbirth. Their access to health care, especially reproductive care, is further limited because of cultural restrictions which prevent women from seeking care from male providers. For example, women have to be accompanied by a male when accessing health services or gaining access to services (UNDP, 1993; World Bank, 1997). Similarly, female health care providers are often not able to practice in rural areas because of cultural restrictions and lack of security (Ward, 1992). Consequently, until the early 1990s, Pakistan was one of the very few countries in the world where women had a lower life expectancy than men, although the current life expectancy rate is estimated to be 63 years for females and 61 years for male (World Bank, 1997). The average life expectancy of women in most countries is 5-10% longer than that of men (World Bank, 1994).

Women's position in society has not changed in any significant manner in Pakistan since independence in 1947; the majority of women (76%) remain illiterate.



Primary school enrolment of females was 49% in 1993, but 55% drop out by the time they reach grade 4. Furthermore, female enrolment at the secondary level is only at 13% (Banuri, Kemal, & Mumtaz, 1997; World Bank, 1996). International evidence shows that the social and economic benefits of female education are very significant (Rosen & Conly, 1996; Schultz, 1989). Educating females is potentially a cost-effective method of reducing health problems as women are essential health care providers to the entire family. Women can be educated to detect and prevent diseases of infancy and childhood and to practice better hygiene, sanitation, and nutrition in the household (Leslie, 1986; Rosen & Conly, 1996). The low education rate for females also impacts on the number and calibre of female health care workers available to a country.

Statistics from a 1986-1987 labour force survey have inaccurately recorded the nature of female participation in the labour force. The official female labour participation rate (LPR) was 28% (average 42 in low income countries) in 1994; the agriculture census reported by the World Bank (1990) indicates female LPR at more than 70%. The labour force survey of 1986-1987 omitted an estimated 12 million female agricultural workers (UNICEF, 1992). This reporting on labour force participation is yet another indication of women's low status in the male-dominated society of Pakistan. The National Manpower Commission (GOP, 1991) described women as "Pakistan's most neglected human resource" (p. 173). Wastage of human resources in Pakistan is most evident among its women. Their low status contributes to high population growth which brings down growth in per capita incomes (World Bank, 1990).

### **Impact of External Donors**

International donors such as United Nation (UN) agencies, the Canadian International Development Agency (CIDA), Division for Funding for International Development (DFID), World Bank (WB), and Asian Development Bank (ADB) have influenced the Government of Pakistan (GOP) to focus on improvements in the social sector, particularly health and education. However, tangible achievements have been limited due to procedural formalities and problems in the various government departments chosen to implement these projects. In addition, loan-funded projects contribute to the country's overall debt servicing burden. There has been a contribution by aid agencies such as CIDA and DFID which focus on the education of health professionals (particularly female health professionals), while aid agencies such as the Japanese International Cooperation Agency (JICA) focus on physical infrastructure facilities.

There has been a convergence of national and international concerns regarding the low human development index, as well as poor quality of life for the people of Pakistan. A Social Action Program (SAP) has been launched by the government, in collaboration with the federal and provincial governments and donors, to improve the quality of life of the people (GOP, 1994).

The Social Action Program, a 5 year programme (1993-1998) is geared toward resolving the gender gaps in the social sectors focussing on female access to education and health. It focuses on four basic social services areas: primary education, primary health care, population welfare, and rural water supply and sanitation. The government

will fund approximately 80% of the cost and has asked the International Development Association (IDA) and other donors to assist with the balance (Mahbub ul Haq, 1997). This programme will address the government's relative weakness in provision of basic social services and promote smaller, healthier, and better educated families. This programme will enhance community involvement and address the issue of access to services, quality of services, accountability, responsiveness to clients, and sustainability.

### **Current Health Situation**

As indicated in Table 2.3, the health indices in Pakistan have shown some improvement, but the pace of improvement has been slow. In comparison with average low income countries, the health status of its people remains poor. The composition of Pakistan's burden of disease indicates that about 50% of diseases are due to communicable diseases and maternal and perinatal conditions. Nutritional deficiencies account for a further 6% (World Bank, 1997). The total government expenditure on health as a percentage of GNP is approximately 1.0%, which is very low as stated earlier in the chapter.

Table 2.3

**Pakistan's Health Indicators:****1960-1970 and 1990**

Health Indicators	1960-1970	1990
Life expectancy (years)	43	62
Fertility rate	7.0	6.1
Crude death rate (per 1000)	23	9
Infant mortality rate (per 1000)	137	95
Maternal mortality rate (per 100,000)	n/a	340
Under 5 mortality rate (per 1000)	221	137
Low birth babies	27%	25%
Malnourished babies	72%	40%
Contraceptive prevalence rate	4%	12%
Access to health services	51%	55%
Access to safe water	29%	50%
Access to sanitation	14%	35%
Birth attended by health personnel	–	35%
Population per doctor	3,780	2,000
Population per nurse	10,040	3,448

Source: Adapted from Mahbub ul Haq. (1997). Human development in South Asia. Karachi, Pakistan: Oxford University Press.

**Health Sector: Public**

The urban and rural health care system in Pakistan is primarily state owned; services are offered free or with very nominal fees. The government is the main provider of health services in rural areas and of preventive care throughout the country. According to the Constitution, health is a provincial responsibility and health services have been established along divisional and district lines in each province. A province is composed of a number of divisions, and is divided into a number of districts. The system has three main levels of health care services:

1. Primary health care services, including:
  - a) Basic Health Units (BHUs) which provide curative and preventive care for a population of about 10,000 to 20,000.
  - b) Rural Health Centres (RHCs) which provide more extensive outpatient services and some inpatient services to populations of 25,000 to 50,000. These have 10-20 beds, x-ray facilities, laboratory and minor surgery facilities.
  - c) Taluka Headquarter Hospitals which provide basic inpatient and outpatient services, including care in several specialty areas and serve populations of 100,000 to 300,000.
  - d) Dispensaries and Maternal Health Centres.
  - e) Vertical programmes such as immunization, tuberculosis control, and malaria control.

2. Secondary health care services:

At the secondary level are District Headquarter Hospitals, usually one in each district. These hospitals serve one to two million people and provide a range of specialist care, in addition to basic hospital and outpatient services. The district is the main unit of the province and the District Health Officer is in charge of all lower facilities at Taluka hospitals, rural health centres, basic health units, and vertical programmes. Local bodies, particularly municipal and metropolitan corporations, also provide services which vary widely in scope and coverage.

3. Tertiary health care services:

At the tertiary level are teaching hospitals, with attached medical colleges, directly under the control of the provincial Secretaries of Health. These were established to provide specialized services to the population (Mubarak, 1990; World Bank, 1997).

Although in recent years the health facilities in the public sector have expanded, the facilities seldom work efficiently. Most deliver poor quality care and fail to reach out to the communities (World Bank, 1993c). These facilities are not furnished regularly with key medicines, contraceptives, or immunization supplies, and frequently health care personnel are not present. Tertiary facilities are overcrowded indicating a failure of the referral system and that people first seek help from hospitals, or that people do not seek care unless they have reached a critical stage in their illness (World Bank, 1993c).

All employees in the public health care sector are public servants and occupy grades ranging from 1 (lowest unskilled workers) to 22 (highest grade). Each cadre of health worker has a predetermined starting grade, criteria for appointment and promotion, as well as defined salary and benefits. As an example, the grades and designations of nursing personnel are provided in Appendix B. The grade distribution is a pyramid shaped with very few persons occupying the higher grade. The number of positions at each grade level is controlled and created by the central authority. Authority for appointing persons to posts in the public system is hierarchal in nature. For example, appointments at the grade of 9-14 may be made by the Director-General Health (DGH) or, in case of nurses, by the Director-General Nursing (DGN), whereas appointments to grade 15 and higher positions require the approval of the Secretary of Health. A similar process of approval applies to transfers and promotions. However, for practical purposes, the DGN may not be able to exercise authority if the DGH or Secretary of Health do not concur. Senior bureaucrats such as Secretary of Health, Director-General Health, and Director-General Nursing spend an inordinate amount of time dealing with human resource management issues such as appointments, promotions, and transfers which could easily be done at lower levels if the system was decentralized. Such vested powers in individuals make them vulnerable to political pressures from elected politicians, vested interest groups, and powerful persons.

### **Health Sector: Private**

The private health care system consists of small office-based clinics of general practitioners, maternal and child health care centres, and dispensaries which are primary health care facilities, medium sized diagnostic laboratories, medium sized hospitals, and a few large hospitals in major cities. These services are mainly concentrated in urban areas. Only 30% of all private health care facilities are located in the rural areas where about 70% of the population lives. Most of these clinics and dispensaries are for treatment of common ailments. Private hospitals and maternal and child health care services are generally scarce in rural areas.

The quality of care in large private hospitals ranges from reasonable to good, while care in clinics, maternal child health (MCH) centres, and small commercial hospitals is poor. This poor care is associated with several factors, including a shortage of nurses, use of untrained workers in place of nurses, and use of improper equipment (World Bank, 1997).

In addition to the health system oriented to the Western medicine model, there is also a large alternative health care system. Practitioners such as traditional birth attendants, hakims, homeopaths, and faith healers have small informal practices and are not formally regulated (World Bank, 1993c). According to the World Bank report (1997), approximately 20% of the population uses government service providers, 50% use private service providers, and 30% use other private traditional or untrained providers as their first outpatient consultation.



### **Health Planning**

The Ministry of Health (MOH), at the federal level, is responsible for formulating national health policies and plans (Nasim & Akhlaque, 1995). Responsibility for health service provision lies primarily with the provincial health department. Each provincial health department is headed by a Secretary of Health, who is assisted by a Director-General (or Director) of Health Services (DHS). District Health Officers (DHO) and Medical Superintendents (MS) of district institutions report to the DHS. Two provinces, including Sindh, each has a Director or Directorate of Nursing with responsibility for nursing service and education (exclusive of the lady health visitor [LHV] cadre). The Directors of Nursing and Medical Superintendents of tertiary care hospitals report to the Secretary of Health.

Bjorkman (1986) described health planning in Pakistan as “complex, disjointed, and sometimes at cross purposes” (p. 363). In the public sector most of the health organization, planning, administration, management, and finance are highly centralized and not well coordinated.

The Federal Planning Commission and Provincial Planning and Development departments are the main planning agencies of the government. Provincial departments of planning and development plan for investment expenditures in coordination with departments of health. Plans for investment expenditures on large projects have to be cleared at the federal level. Recurrent allocations or non-development budgets are planned annually at the provincial level, mostly on the basis of previous years' expenditures (World Bank, 1993c). Planning processes have dealt mostly with the public

sector, largely ignoring the private sector. Furthermore, many planning decisions, including those which are technically based, are performed by people in the budget section of the Department of Finance (World Bank, 1997). This department controls disbursements, allowing limited flexibility to health departments for reallocation of funds between line items (World Bank, 1993b).

The Establishment Division at the federal level is the legal advisor for recruitment procedures. It regulates formulation of policy for recruitment to various grades and ensures that all policies are consistent with the Rules, Act, and Constitution of the country. The division provides rules and regulation on mode of recruitment of created posts. For example, it determines what percentage of the posts will be filled through promotion and what percentage by direct recruitment. It also regulates career planning and training of officers in public administration (GOP, 1973)

In this centralized administrative system, the involvement of provinces in planning is limited. Similarly, provinces follow the same restrictive pattern with very little delegation of authority to the divisional and district levels for managing budgets or appointing staff. As a result, it is very difficult for local authorities to take the initiative to improve health service delivery (Rosen & Conly, 1996). Minimal coordination occurs between the organizational units within a province and between federal and provincial governments. Planning and budgets are done independently of service delivery.

Pakistan inherited colonial bureaucratic administrative structure and systems which have not been reviewed or revised since its creation in 1947. The bureaucracy is characterized by rigid hierarchal administrative structures requiring a decision even on

the most trivial of matters to be made by senior bureaucrats. The flow of information and authoritative lines are hierarchal; lateral communication is not common and, in many instances, it is discouraged. This is strictly adhered to and one would not find individuals at lower levels by-passing their superiors. Information is considered a source of power (as in any bureaucracy) (Kennedy, 1987; WHO, 1990), but in Pakistan it is rigidly controlled and rarely shared or disseminated. There is a lack of transparency in the system and senior government officials lack knowledge of events occurring outside his or her immediate sphere of influence (Nasim & Akhlaque, 1995).

### **General Issues in the Health Sector**

Zaidi (1988) described the health care system in Pakistan as “a highly inequitable, Western oriented curative care model which certainly does not fulfill the requirements of the majority of the people” (p. 3). The problems of health care are linked directly to the prevailing social, economic, and political system that determines the allocation of resources within and outside the health sector. The main problems facing the publicly-funded health sector in the delivery of health care in Pakistan are well recognized and well documented (GOP, 1995; Mahbub ul Haq, 1997; World Bank, 1997). Some of these include:

- ▶ Lack of management and organization.
- ▶ Inadequate financial resources.
- ▶ Poor allocation of funds.
- ▶ Inefficient and ineffective use of funds.

- ▶ Rapid population growth.
- ▶ Lack of established standards of care.
- ▶ Lack of comprehensive research in the health field.
- ▶ Inadequate health human resource development.
- ▶ Low status of women.

### **Impact of Health Policies**

Pakistan's health policy is formulated at the federal level, but implementation of these policies, in theory, occurs at the level of provincial departments of health. Health policy has largely evolved through numerous five year plans (FYPs). The FYP schedules have been prepared by the Planning Commission of the Government of Pakistan: from 1955-1960 (First Plan) to 1993-1998 (Eighth Plan) with a period of non-planning from 1970-1978. Although many resources have been utilized to prepare these plans, the targets have not been achieved as predicted and significant improvements are not apparent in the health status of the population.

For over four decades, Pakistan's resources and priorities have been given to "hospitals, medical schools and curative care development, neglecting primary and promotive health care" (World Bank, 1993c, p. 4). While the infrastructure was built to implement primary health care, limited funding was allocated for the provision of services. The poor state of health of the population, in general, has been attributed to major policy failures and institutional constraints which limit the government's capacity to implement policy reforms (French & Herberg, 1995).

A World Bank report (1993b) stipulates that difficulty with implementation is partly “due to the fact that higher level planning is done in a quasi-academic environment, whereas plan implementation takes place in a chaotic, resources-limited and resource-competitive environment” (p. 44). However, limited research is available on policy analysis, including policy formulation, policy implementation, and policy evaluation in the country.

It is important to note that human resource development policy has been consistently documented in all five year plans and the national health policy of 1990; yet there is no significant improvement in the health human resource development in Pakistan. One of the influencing factors affecting HHRD is lack of political will. The decision making in relation to planning and policy formulation is dependent on politicians and feudal lords, and not on merit by following rules and regulation (World Bank, 1993b). This creates a lack of transparency in the system which impacts on morale and motivation of other employees (UNDP, 1993).

### **Implications for HHRD**

Characteristics of Pakistan which have implications for HHRD include: type of government, gender disparity, absence of unions, and the low value placed on social sectors. The majority of health human resources, including nursing and medical personnel working in the public health sector, are employees of the government, hence the functioning of the government has a direct relationship on HHRD. Furthermore, Pakistan does not have a strong labour union movement of professionals as is prevalent in

other countries. However, professional associations such as the Pakistan Medical Association have a strong influence. The impact of nonexistent or weakly organized labour movement on HHRD in Pakistan needs to be determined.

HHRD has functioned well in stable political countries with a centralized system of government, for example, Cuba and Costa Rica. However, in a country like Pakistan with chaotic political instability, legacy of colonial rule and civil-military bureaucracies (Bhatia, 1990; Kennedy & Rais, 1995; Zaidi, 1988), health human resource development becomes a challenging and difficult task.

The issue of gender divisions is becoming an increasing concern in the country (Shaheed & Mumtaz, 1990). There is a gross neglect of women's issues in the country which is reflected in all spheres of life. Gender inequity impacts on health care accessibility and utilization by women in urban and rural areas, and on the health professionals' role in providing care to this segment of the population.

Budget allocation of resources to health and education is reflective of the value given to the social sector. Pakistan is one country in the world which allocates the least amount of its budget to the social sector. The theoretical perspectives on HHRD will be reviewed in Chapter 3.

## **CHAPTER 3**

### **LITERATURE REVIEW**

This chapter presents a review of theoretical perspectives of components of health human resource development (HHRD). A discussion and critical appraisal of selected models of HHRD and nursing human resource development (NHRD) are also included in this chapter. HHRD in Pakistan is discussed in a general context with emphasis on NHRD. Literature on nursing human resource is quite limited as most studies have been carried out in the United States and Canada, and may not be generalizable to developing countries such as Pakistan because of differences in health care organization and delivery systems. Selected articles are reviewed to provide relevant information on components of NHRD. The rationale for using the coordinated health human resource development (COHHRD) framework and Hall's (1993, 1995) guidelines, adapted to Pakistan, is provided. As background, five year plans (FYPs) (1978-1998) containing policies pertinent to NHRD in Pakistan are presented.

Theoretical underpinnings of the thesis, the social construction of reality and perception, and situational analysis are presented as background to analysis and interpretation. The purpose of the study and the research questions are also addressed in this chapter.

## **Health Human Resource Development**

### **Overview of HHRD**

Human resources play a predominant role in the socioeconomic and technological development of nations (CIDA, 1987; Ghafoor, 1984). The wealth of a nation is as much dependent upon the development of its human capital resources as upon the accumulation of its physical capital. The ultimate goal of human resource development however, is not to improve the wealth of the nation, but to improve the quality of life of all its people. Improvement in quality of life of human beings is a moral and social imperative of a state and its citizens (Bacchus, 1991) and human resource development is necessary to achieve this goal.

A health system is “a complex of interrelated elements that contribute to health in homes, educational institutions, work places, public places, and communities, as well as in the physical and psychosocial environment and in the health and related sectors” (WHO, 1990, p. 10). A health human resource planning system must be integrated into the overall health care planning and health policy making processes in order to achieve an affordable and balanced delivery of services in the country (Ozcan, Taranto, & Hornby, 1995). As a service industry, the largest component of health care costs is labour costs, and the performance of any health care delivery system depends primarily on the adequacy and proper utilization of its human resources. Reid (1992) emphasizes that it is a matter of urgency in current times of economic restraint, that HHRD strategies are developed or reexamined to ensure more efficient, effective, and equitable provision of



health services. Service delivery, in terms of cost, quality and quantity, depends to a great extent on the “effective deployment and utilization of human resources” (Ozcan et al., 1995, p. 306). The challenge is to provide health human resources in sufficient quantity and quality to meet the health service goals and objectives within the economic realities of a given country (Reid, 1990a).

Health human resources are integral to a country’s health system and HHRD must be a critical element in any national health plan. Health human resources include all persons engaged in any capacity in the production and delivery of health services. “These persons may be paid or volunteer, with or without formal training for their functions, in the public or private sector” (WHO, 1990, p. 8). Reorganizing and restructuring health human resources is a complex phenomenon which requires commitment, political will (WHO, 1990), well-qualified staff, and sufficient resources. As well, it must be dynamic in order to be responsive to changing health care and environmental factors.

Furthermore, there needs to be a concerted effort to educate senior managers in planning and policy development, management, and evaluative function to improve policy process and its management (Ozcan et al., 1995). However, as important as it is, HHRD is only a means and cannot be considered an end, since it is the services that people demand and not the human resources (Amarsi, French, Herberg, & Baumann, 1996; Bankowski & Mejia, 1987; Hall & Mejia, 1978).

### **Purpose of HHRD**

Since World War II, health human resource development has evolved from an emphasis on increasing numbers to improving quality. Attention has gradually shifted toward improving training, skill enhancement, utilization efficiency, and better planning. The need for integration of health services and health personnel development was implied during the 1950s, but it was not until 1976 that it became an official WHO policy. Several authors have postulated the purposes of HHRD from a variety of theoretical perspectives:

- ▶ To enhance production, efficiency and safety, and reduce human wastage and human deficiency through the effective use of human resources (Ginzberg, 1986; WHO, 1989).
- ▶ To enhance quality of care by providing the correct expertise with appropriate utilization, appropriate administrative and practical support services, and staff mixes (Essex County District Health Council, 1993).
- ▶ To promote career development, job satisfaction, and security for the employees within a constantly changing system (Bacchus, 1991).
- ▶ To achieve cost effectiveness and maintain a balance between supply and demand by controlling shortages and surpluses and avoiding duplication (Manga & Campbell, 1993).
- ▶ To provide a rational approach to decision making and resource allocations, and ultimately to shape future planning (WHO, 1990).

### **Components of HHRD**

Human resource development has three major components: planning, production, and management (Bacchus, 1991; Hall, 1993; Hall & Mejia, 1978; Keet, Henley, Power, & Heese, 1990; WHO, 1990). Ideally, these three components function as an ongoing cyclic process and are evaluated and updated regularly as in quality assurance programmes, rather than merely in times of crises (Birch, Lavis, Markham, Woodward, & O'Brien-Pallas, 1994; Kolehmainen-Aitken, 1993).

### **Health Human Resource Planning**

Health human resource planning is defined as the process of estimating the number of health personnel and the kind of knowledge, skills, and attitudes they need to achieve predetermined health targets (Hall & Mejia, 1978). Planning activities involve the examination of current supply and requirements to identify imbalances, as well as the examination of future supply and requirements. Other dimensions of planning include: demographics of health personnel, geographic distribution, level of care (primary, secondary, tertiary), and filled/vacant positions. The purpose of health human resource planning is to identify and achieve the optimal number, mix, and distribution of personnel at a cost that society can afford (Kazanjian, 1991). However, it is essential to recognize that health human resource planning does not only deal with numbers, but is concerned with having the right people in the right place, doing the right things, and having the right expertise (Centre for Health Economics and Policy Analysis [CHEPA], 1995). Over the

years human resource planning has been broadened to include formulating human resource policy.

Human resource policy addresses areas such as recruitment, retention, skill mix, promotions, performance appraisals, distribution and utilization, and professional governance and regulation which impact upon HHRD. Policy refers to statements made by relevant authorities intended to guide the allocations of resources and effort (WHO, 1990) and can be defined as “a rule to establish, control, or change the behaviours of institutions, individuals, or both in order to address an issue or problem” (Majehrzak, 1984, cited in Lomas, 1993, p. 11). Boulding (1967) states, “Policies are principles and courses of action adopted and pursued by established governments of societies, as well as by various units within the societies” (cited in Lomas, 1993, p. 11). The planning and policy function is concerned with the qualitative aspects of human resources for health, as well as the quantitative aspects of health human resource requirements.

Planning for future resources is largely determined by the levels of funding that governments decide to allocate to these resources. The appropriate number within a category of workers is, therefore, conditional upon a society’s decisions about the right amount of health care services to produce. The issue is one of making choices: “...choices about how much to spend on health care services, choices about the types and quantities of services we want to provide, and choices about how and where we want to provide these services” (Birch et al., 1994, p. 9).

Hall (1988) has provided the following guidelines to facilitate health human resource planning:

1. The process should be dynamic and flexible. Projections should be made for a long period of time (10-15 years), used for a short period of time (3-5 years), and updated often.
2. A realistic forecasting model applicable to a country or region should be used.
3. Planning of all relevant health workforce categories should be integrated as their supply, productivity, and requirements are strongly interrelated.
4. Health human resource planning should be incorporated in overall health strategic planning. Provincial health human resource planning must be strongly linked to federal and regional planning.
5. Both supply and requirements should be projected to similar levels of details and accuracy.
6. Attention should be given to policies designed to decrease losses to bring supply and requirements into balance (e.g., don't just train more health workers, but explore strategies to reduce losses, increase productivity, or reduce demand).
7. The number of health care workers is only part of the question; their quality, motivation, utilization, and other considerations are also very important.
8. Future efforts in health care should be driven by better utilization of current resources.
9. Provision should be made for both planning process and outputs.
10. Acknowledge that the prediction may not be accurate but it is important that health human resource planning assist in moving the policy and actions in the right directions.

### **Health Human Resource Production**

Health human resource production is concerned with both basic and post-basic education (Hall, 1993; WHO, 1990) and includes activities such as assessing the quantity and quality of existing and proposed training programmes, including curricula and programme, physical facilities, faculty, attitudes of students, applicant pool, enrolment, graduates, and outcomes. Educational programmes for health personnel include diploma, undergraduate, and graduate programmes in schools/colleges/universities. Production involves selection of students, identifying the applicant pool, type and number of graduates; attrition rates, numbers and qualifications of faculty; faculty-student ratios; coordination between education of personnel and their utilization; and a curriculum relevant to the needs of the country. Monitoring and evaluation of all these elements and determination of costs are part of production activities.

Production is one of the central aspects of health human resource processes, but it is not usually under the health system's sole control (Kolehmainen-Aitken, 1993). It involves all training and educational institutions which are often a joint responsibility of health and educational ministries.

### **Health Human Resource Management**

Health human resource management is concerned with the working environment, staffing patterns, shortages and surpluses, remunerations, incentive schemes, performance appraisals, productive standards, career development, and continuing education. It has been defined as the "...mobilization, motivation, development, and fulfilment of human

beings in and through work. It covers all matters related to the employment, utilization, evaluation, and motivation of all categories of health care workers” (WHO, 1990, p. 10). Recruitment, retention, turnover, and attrition of human resources are directly affected by management practices (Hall, 1993; Reid, 1990a).

### **HHRD Models**

Traditionally, HHRD models have focussed exclusively on planning and have omitted the production or management dimensions. Furthermore, human resource planning has been based on frameworks in which the required number of health human resources is estimated and compared with the estimated supply of providers (Markham & Birch, 1997). The requirement of health human resource is more broadly focussed and takes into consideration the dynamic relationships between supply of human resources and demand of health care services, the links with other health care inputs, outputs of health services, and economic and political issues (Birch et al., 1994). Attention also needs to be focussed on the political context of the issues of planning. A thorough understanding of the interactive dynamics of macro- and micro-factors within a country’s context is necessary for a comprehensive analysis of the health human resource situation (Kazanjian, Brothers, & Wong, 1986; Kazanjian & Wood, 1993).

Approaches to the estimation of future resource requirements can differ, both in terms of method and conceptual approaches. Three methods for estimating future human resource requirements are projections, forecasts, and plans (Birch et al., 1994). The appropriate method is determined by the question being asked and the data available.

“Projections are based on the assumption that past observed patterns or relationships will be extended (or can be projected) into the future. Forecasts introduce considerations of exogenous shocks that are known or expected to occur but is not under our direct control (e.g., weather forecasts). Plans introduce considerations of endogenous changes to the system to reflect that some variables which influence the estimates can be changed by active policy decisions (e.g., changing regulations on scope of practice, method of remuneration, etc.) in efforts to meet policy objectives” (Birch et al., 1994, pp. 13-14).

Birch et al. (1994) reviewed the various conceptual approaches to estimating human resources and identified three main categories of approaches:

1. The utilization-based approach builds its estimation of future requirements on the current quantity, mix, and distribution of health human resources and its relation to population demographics. Traditionally, utilization-based methods have been used in some of the industrialized countries to estimate future needs. However, ongoing changes to the health care system, specifically a shift from hospital- to community-based care, combined with technological advances and an aging population, present challenging demands on the system.
2. The needs-based approach assumes that all needs for health care could and should be met. Calculations of health human resource requirements are based on meeting the service needs of the estimated future population in cost-effective ways. This approach is useful in thinking about the upper limit to the human resource requirements. Its limitation is that society may not want to or be able to meet all



its needs for care. Although strong on planning for needs, this method is weak in the area of managing the required human resources to meet those needs.

3. The effective-demand approach takes into consideration society's willingness and ability to fund health care in the context of the various other opportunities for using society's scarce resources (Birch et al., 1994). Although this approach is dependent on needs considerations, it is concerned with the relative needs as opposed to absolute needs. The method is advantageous in terms of data requirements, although there is no clear mechanism for developing future scenarios.

The need to develop models for the health sector arises from a need to plan for the supply of health personnel, as well as to estimate the need and demand for health human resources. The modelling has varied from simple deterministic population models to models using econometric and Markovian analysis. Models are designed to fulfil specific information needs regarding factors of supply and demand (Pagliccia, Wood, & Kazanjian, 1993). Historically, health human resource planning has been based on frameworks in which the required number of health care providers is estimated and compared with estimated supply of providers (Markam & Birch, 1997). The following are three commonly cited HHRD models.

## 1. SHARP Model

Denton, Gafni, and Spencer (1995) developed a utilization-based SHARP computer model for estimating the future supply and demand of various health system inputs. The System for Health Area Resource Planning model (SHARP) brings together all major elements of the health care system and organizes it explicitly as a system. The model is an analytical framework consisting of seven separate but interacting microcomputer-based models (SHARP 1-7) that bring together the major components of the health care systems (Denton, Gafni, & Spencer, 1993). The first two models project the population to be served and the corresponding requirements of health care services; the next four models project the availability of such services. SHARP 1 projects future population demographics (years of age and male/female) based on current population size, fertility/mortality rates, and immigration/emigration data. SHARP 2 provides information regarding health system requirements. The programme can be run based on current utilization rates or those that account for possible changes in the future. The “...requirements are defined so as to be entirely independent of the availability of services: conditional on a given set of utilization profiles, requirements change only in response to changes in the size and distribution of the population” (Denton et al., 1995, p. 127). SHARP 3, 4, 5, and 6 provide input regarding the availability of resources. SHARP 3 and SHARP 4 deal with physician and nurse populations respectively. These two models also include the associated availability of services and consider factors such as: institution-based, community-based, and the physician’s office-based practice; aging, mortality, migration, and retirement; education of new recruits; and full-year equivalent

practising personnel. SHARP 5 deals with supply of other health care providers (registered nursing assistants, dentists, chiropractors, etc.). Projections are based on rates of growth and participation ratio. SHARP 6 models the availability of institutional beds. “Projected requirements and availability of health care personnel and beds are brought together in SHARP 7, the balance evaluation model” (Denton et al., 1995, p. 129). The imbalances between requirements and availability are calculated. A user can then determine what changes would be necessary to remove the imbalances. “The balance/ imbalance implications of alternative future patterns of health care delivery, medical and nursing enrollment, etc. can then be studied as a basis for more informed policy decision making” (Denton et al., 1995, p. 129).

Denton, Gafni, and Spencer (1997) recognize that many changes to the health care system have taken place since the framework was designed in the 1990s and the SHARP model is undergoing modifications to remain an effective tool for planning and analysing health human resource needs. A critique of the model is that it is demand-driven. It is unable to predict the impact of a rapidly changing health care environment. Human resource requirements are ultimately population-based projections of utilization rates. Applying this model to a country like Pakistan is problematic because the model relies heavily on health and human resource data bases which are not readily available.

## 2. Coordinated Health Human Resource Development (COHHRD) Model

Since 1976, WHO has been advocating for a coordinated health system and human resource approach. This integrated approach requires a fundamental shift in

philosophy from focussing on development within specific disciplines and service sectors to an interdisciplinary and intersectoral approach. Three fundamental principles form the basis of the COHHRD model (Appendix C): (1) planning, production, and management functions must go together; (2) human resources are to serve health system needs; and (3) the health system must serve peoples' needs.

The COHHRD model is organized around the three components of HHRD and is recommended for use at the macro or country level in the development of comprehensive human resource development plans. It provides an overview of a country's overall health planning, socioeconomic planning, and the health needs of the population. There are two major advantages of the COHHRD model. Firstly, all three components of the HHRD are addressed. Secondly, it provides a framework on which initial planning can begin. Despite being based on a simple concept, the implementation of COHHRD has proven to be very difficult. The variables in each of the components are not defined, and countries have encountered difficulties when attempting to apply the model. At the request of WHO, Hall (1993) developed a set of guidelines for HHRD. The guidelines are provided under broad headings of human resource development, human resource health legislation, policy, information systems, review and planning studies, functional job analysis, and supply and requirement projection models. These guidelines may be adapted to local needs and circumstances and be used for multiple purposes, both at the macro and micro levels. However, these guidelines have not been tested.

### 3. Integrated Health Human Resources Development Project (IHHRDP)

The Canadian Nurses' Association (CNA), in collaboration with the Canadian Association of Occupational Therapists, the Canadian Dietetic Association, and the Canadian Physiotherapy Association, developed the IHHRDP (IHHRDP, 1996). This additional model advocates an interdisciplinary and intersectoral approach to HHRD which could be applied to a system or subsystem level. The framework examines complex relationships among five elements: the environment, health needs, health human resource planning, health human resource education and training, and health human resource management. Similar to the COHHRD approach, this model provides a broad framework for theoretical planning of the HHRD process, but does not provide explicit direction for empirical application of the model (Nursing Effectiveness, Utilization, and Outcomes Research Unit, 1997).

### **Nursing Human Resource Development**

Nursing human resource development (NHRD) can be reviewed from the perspectives of the three previously defined components: planning, production, and management of HHRD. It is critical to note that these components are not mutually exclusive and overlap is found among the components.

Within any health care system, registered nursing personnel are important human resources (Brihaye, 1994; Cowart & Serow, 1992; Hancock, 1992; Mohsin, 1993; Reid, 1992). They usually constitute one of the largest groups of health professionals (Stelling, 1994), and make up approximately 70% of the total health service workforce (Buchan &

Ball, 1991; Hancock, 1992; Tierney, 1993). In 1989, an American survey asked 663 hospital chief executive officers to rank order the ten most important factors which they believed contributed to quality of patient care. In 97.3% of the cases, nursing was ranked as the most important of the ten factors (McKenna, 1995). Timely and reliable data on nurses' numbers, mix, distribution, and characteristics are essential for ensuring an adequate supply of personnel.

Abdellah and Levine (1994) suggested that research on NHRD be considered a priority for the 21<sup>st</sup> century in order to make full utilization of existing technologies and resources in achieving effective patient care. They recommended studies of factors affecting the supply and demand of nurses, their distribution, job turnover, job satisfaction, and problems of adaptation among the nursing profession. Studies should also be conducted to determine the dynamics of nursing recruitment and retention, the educational processes and career patterns, and the cultural, social, and psychological variables that influence these processes. O'Brien-Pallas (1992) and Kazanjian and Wood (1993) emphasize that the issues of NHRD need to be seen in the context of national health planning and existing health systems, as well as within the socioeconomic, cultural, and political milieus of specific countries. Furthermore, planning for nursing requirements has to be integrated with planning of other health professionals (WHO, 1990).

In 1993-1994, a worldwide survey was conducted by the International Council of Nurses (ICN) regarding nursing issues, priorities, and activities. One hundred seven national nurses' associations of seven regions were surveyed. The response rate was 43%

(n = 46). The member states were concerned with nursing shortages, nursing legislation, salary, and working conditions of nursing personnel. Nursing education was ranked as the top priority (International Council of Nurses [ICN], 1995). A recent report by WHO entitled "A Study to Examine the Strengthening of Nursing and Midwifery Services" outlines many issues that are integral to nursing workforce planning (O'Brien-Pallas & Hirschfeld et al., 1997).

### **Components of NHRD**

#### ***Nursing Human Resource Planning***

Human resource planning activities include estimating the current supply and requirements, as well as projecting future needs. Current trends in numbers of nursing personnel in relation to the population indicate imbalances between industrialized and developing countries. An International Labour Office (ILO) study of 40 member countries determined levels of remuneration of nursing personnel. The ILO used data from the selected countries and international organizations, such as the World Health Organization and International Council of Nurses (ICN), to estimate nursing personnel numbers. Out of 32 countries in the sample, 12 industrialized countries (9 countries in Europe, Canada, the United States, and New Zealand) have at least three nurses per 1,000 persons. In contrast, there were 13 developing countries (including 8 in Africa and 3 in South-East Asia) with a nursing personnel ratio of one nurse per 1,000-5,000 persons. The GNP in most countries in the first group ranged from \$12,680 to \$26,040 and between \$200 to \$2,000 in the second group of countries, thus indicating some countries

are disadvantaged with low GNP per head and very low number of nursing personnel (Brihaye, 1994). The imbalance of nurse to population ratio in the developing countries was reported to be due to a decline in the proportion of women employed in the profession and the problem of reconciling the constraints of family life with those of working life which increase in connection with level increases of jobs and duties (Brihaye, 1994).

The situation in Egypt illustrates some of the consequences to a profession when an imbalance in supply and demand exists. Egypt reports a “tremendous” shortage of nurses and imbalance in the distribution of nursing personnel at primary and curative sectors and between the public and private sectors. To compensate for this shortage, nursing personnel were reported to be working in more than one institution and some nurses were working 52 hour weeks in the private sector (Ghazi, Nasser, Ismail, Fikry, & Selim, 1994).

The ILO (Marsden, 1994) report addressed gender and the distribution of nurses within leadership positions. In India and Malaysia practically all nurses were women, and in 15 out of 24 countries more than 80% were women. Only Madagascar reported a majority of men (58%). A significant discrepancy was reported between the proportion of men in the nursing profession and the proportion of leadership positions occupied by men. In England, over one third of the positions of responsibility (leadership, management, training) were occupied by men; in Mauritius men occupied 55% of the highest nursing posts in the public sector; and similar situations existed in Denmark and Norway.



In the countries studied, general policy on health matters (planning of equipment, supplies, general measures to improve health, promotion of preventive measures, general standards concerning the skill levels, and training of staff, etc.) was the responsibility of the State. These policies were framed and implemented by “executive organs of the State” (Brihaye, 1994, p. 23). In some countries the primary responsibility for all matters relating to health such as policy making, technical, economic, and administrative matters rested solely with the Ministry of Health (e.g., Argentina, Malawi, Zambia) (Brihaye, 1994). In other countries matters relating to remuneration and working conditions are dealt basically by a different ministry, for example, by the:

- ▶ Ministry of Labour in Costa Rica, Panama, Sri Lanka;
- ▶ Ministry of Finance in Denmark, Egypt;
- ▶ Ministry of Administrative Affairs in Mauritius;
- ▶ Ministry of Human Resources in Malaysia (Brihaye, 1994, p. 23).

These findings demonstrate variation of approaches in dealing with HHRD and that HHRD cuts across several ministries for different functions. The multidimensional nature of HHRD and lack of uniformity of approaches reinforce the difficulties of making comparisons across countries. Although the report provides information on who has responsibility for policy formulation, it does not provide information on the policy formulation process.

The ILO findings should be interpreted with caution as the reports from each country do not specify method of data collection. In some instances the ILO has commented on the imprecision of the information received from member countries. The

categories of nursing personnel vary in each country and may have included professional staff, assistant or auxiliary nursing staff, and midwives and their assistants in private and public sectors; but there was no breakdown by categories in the countries studied.

Nurses in developed countries like Canada have taken an initiative to be proactive. The Canadian Nurses' Association (CNA) funded a study to determine the supply and demand of nurses. The study provided information which was seen as "assisting the decision makers to shape the future in a desired direction" (CNA, 1997, p. 47). The study utilized the data sets from the CNA and using a cohort analysis method, demand for nursing personnel for the year 2011 has been projected (CNA, 1997). Supply of nursing personnel in Canada over the last three decades (1966-1996) has grown at the rate of 65%. The percentage of registered nurses (RNs) working in nursing in Canada has gradually increased from 70% in 1967 to 89% in 1993. It is predicted that this increase will not, however, meet the need generated by an aging population, nor will it meet the intermediate target set, thus predicting a "pronounced shortage of nurses in 2011" (Ryten, 1997, p. 14). The Association believes that an impending shortage of nurses is not "simply a labour market cycle but it is a threat to the well-being of all Canadians" (CNA, 1997, p. 19). Basic assumptions were: nursing employment prospects will keep pace with population growth (23%); and no major change in trends will occur. The Ryten (1997) study used a forecasting approach and relied on projected age of the population by the year 2011. The major criticism of the study has been that only one predictor, that is, age of the population and of the workforce was used to project demand.

### **Nursing Human Resource Production**

Nursing consists of various cadres across countries. Health planners may not always recognize the need for different educational preparation for different nursing personnel. The supply of nursing personnel is affected by number and type of new graduates, nurses reentering or leaving the workforce, and migration out or immigration into the country. For example, the statistics of Canada as of July 1994 (a 1 year “snapshot” of RN graduates), indicate that the national average of new graduates as a percentage of the nurse population is 0.025 with wide variations within individual provinces (Park & Hughes, 1997).

The academic qualification for entry into nursing educational programmes varies across countries (Marsden, 1994). A number of countries require post secondary education in order to be considered for admission to studies at the diploma level. This system is recognized by countries, including Australia, France, India, Pakistan, Mexico, Spain, and Sweden. In many countries there are two entry points, that is, diploma and degree. Different cadres within nursing have implication for continuing education and establishing career ladders (Brihay, 1994).

Substantive changes in nursing education, even when based on identified need, are difficult to implement. For instance, the Nurse and Midwife Act, 1979 established a new statutory body, the United Kingdom Central Council for Nursing, Midwifery and Health Visitors (UKCC) to coordinate nursing education in that country. A project team was established by UKCC to review and recommend a new approach to the educational preparation of nurses. Thus Project 2000 emerged, which proposed that nursing

education should be more associated with the rest of higher education in the United Kingdom. It proposed that students should not be used as a significant part of the labour force and that student status should be protected. It also recommended that there be a common foundation programme for all students, after which they could specialize. The period of education would remain 3 years. Implementing these recommendations has proven to be a difficult and challenging task. In particular, the phased removal of students from direct patient care, has resulted in substantial shortages of nursing personnel in particular units. The financial implications of the proposed changes in nursing education have further slowed the process of implementation. The slow pace of implementing the changes has been criticized. Also, the changes to nursing education have affected the recruitment over the next few years (Thornley & Winchester, 1994).

Several researchers have concluded that in addressing the adequacy of the supply of nursing personnel to meet the challenges of health care in the 21<sup>st</sup> century, the aggregate quantity of nursing personnel may be adequate but their educational mix may not be enough to meet current or future demands in a rapidly changing health care system. According to the 1992 National Sample Survey of Registered Nurses in the United States, 31% of employed nurses in all health care settings had a baccalaureate degree in nursing, 31% had an associate degree in nursing, and 30% were graduates of diploma programmes in nursing (Wunderlich, Sloan, & Davis, 1996). The total number of educational programmes that prepare nursing personnel has remained around 1,493 during the past decade. In 1993, there were 507 baccalaureate programmes, 857 associate degree programmes, and 129 diploma programmes. In terms of quantity, associate degree

programmes are graduating almost twice the number of baccalaureates and diploma graduating nurses combined. Half of the top managers and 60% of the mid level managers in nursing had less than a baccalaureate degree. The authors identified that if the upward trend to associate degrees continues, it may result in the nursing workforce not having the knowledge and skills required to meet the demand for broad-based skills in a restructured health care system (Wunderlich et al., 1996). They implied that advanced preparation of nursing personnel is needed. The survey did not indicate the sample size nor provide the sampling frame and thus the adequacy, representativeness, and generalizability could not be determined.

In terms of recruitment, nursing as a career choice has to compete with an expanding number of career options. For example, dramatic shifts in career preferences of North American women are moving toward business, law, and engineering careers and have reduced the applicant pool to educational programmes in nursing. Decreased enrolment in nursing education programmes may also be attributed to demographic (decreased number of college-going persons) and economic (relatively low earnings in nursing compared with other health and non-health alternatives) considerations (Carlson & Cowart, 1988).

The production of nurses may not be related directly to the health needs of the country, but are used as a means of increasing foreign exchange through the export of nurses (Abella, 1997). This practice may have a negative impact on the quality of education. For example, production of nurses had become a lucrative business in the Philippines. The demand for nurses abroad, particularly in the United States and the

Middle East, had led to schools adopting a policy of “open admission” to obtain an adequate number of applicants. This practice compromised qualification standards and resulted in a downward spiral trend in nursing education in the Philippines (Ortin, 1994). Yapchiongo (1990) undertook a survey in the Philippines to obtain a baseline data to improve nursing education and practice. Out of 129 nursing schools which were sent the survey questionnaires, 82 (64%) responded. Of these respondents, 10 (12%) were from the government sector and 72 (88%) were from the private sector. Out of a total of 2,338 nursing faculty members, 2,012 (86.1%) were working full time, while 326 (13.9%) were working part time. Total student enrolment in all respondent schools was 65,040. The survey further revealed that in many schools of nursing there was a lack of qualified, competent faculty staff: “538 (26.1%) had 1 year or less of teaching experience and 54.9% had maximum of 3 years” (Ortin, 1994, p. 214). Frequent turnover of faculty and unusually high enrolment figures coincides with an overworked faculty.

Ortin (1994) summarized the impact on the quality of nursing education, “new colleges of nursing were opened possibly due to political pressure because of demand for nurses abroad. Nursing education in the country was criticized as Western oriented. Although the new curriculum had placed emphasis on community nursing, which is what the country needs, the nursing curriculum in general produces nurses who are curative and hospital oriented—just right for export” (p. 225).

Production is concerned with all levels of education. In comparison to a country like Pakistan, the Philippines has more opportunities for higher education in nursing. Another survey sample of 3,257 nurses (school health nurses, military, and civilian

nurses) in the Philippines revealed that 103 (3.16%) hold a diploma, 2,660 (81.67%) have a bachelor's degree, 477 (14.65%) a master's degree, and 17 (0.52%) a doctoral degree (Ortin, 1994). The majority of higher education degree holders were among the faculty of educational programmes.

Other important aspects of nursing human resource production are student attrition and the number of students completing educational programmes. Most of the trend data is from North America. Attrition rates of nursing students have been reported as high as 41% in a school in the United States (Rosenfeld, 1988). Methods of student selection and retention have been studied in order to reduce this rate and the economic costs of educating nursing students. Hughes, Wade, and Peters (1991) examined personality traits of those students who graduated from a nursing programme in a public university in the United States and those who did not, and developed a formula to predict which applicants would graduate. Smith (1990) surveyed non-returning nursing students and found that attrition was due to class schedules, financial burden, and outside employment demands. The perception of the faculty differed from that of the students. The faculty cited poor study skills as the main reason for attrition. Smith suggests that student retention should begin with pre-admission interviews that describe the financial and time commitment required of nursing students. Speake (1992) stresses the responsibility of nursing educators to ensure that curricula are relevant to contemporary and future nursing practice in the country. One of the indicators that impacts the quality of graduates is relevancy of the curriculum, which includes the classroom and clinical experiences of students.

### **Nursing Human Resource Management**

Human resource management is concerned with issues such as salary/benefits, job satisfaction, and working conditions of the nursing human force in the workplace.

Working conditions for nurses are important for the recruitment, retention, and management of nursing personnel in the workforce. In the 1980s, nurse recruitment and retention received increasing attention in the literature. The conventional definition of recruitment is to attract nurses to a particular position/place or to the profession, while retention refers to keeping the nurses there. Several studies have indicated the negative impact of inadequate staffing or nursing shortage on the quality of patient care, increased hospital costs, and the morale of nurses. Schmeling (1992) examined the issue of increasing the supply of professional nurses and determined that the best recruitment strategies for increasing supply are those that influence the image of nursing and the career choices of young people.

A theoretical overview of many variables that influence nurses' work life include both internal and external dimensions (Baumann & O'Brien-Pallas, 1993; O'Brien-Pallas & Baumann, 1992). Internal dimensions include factors that focus on the nurse and the environment in which the nurse works and include individual, socio/environmental/contextual, operational and administrative factors. The external dimensions include clients and their demands on the system, health care policy, and the labour market. The interactions of all these factors influence both nurse and patient outcomes. An exploratory study of the influence of the workplace on nurse manpower supply in British Columbia assessed the impact of specific workplace factors likely to affect the long-term



supply of nurses. Major factors were staffing, scheduling and utilization practices, education and service disparities (discrepancies between educational values and operational settings), economic incentives, organizational support, patient care issues, specialization, nurse-physician relationships, clinical recognition, and status (Kazanjian & Wood, 1993).

Several studies reinforce the point that quality of work life affects the supply of nurses. From a North American perspective, studies emphasize the degree of control over work as a primary factor affecting quality of work life (Attridge & Callahan, 1989; Carlson & Cowart, 1988; McCloskey, 1990; Speake, 1988). The quality of nursing work life contributes toward job dissatisfaction which has been associated with excessive job stress. Some of the factors associated with job stress include poor working relationships, lack of opportunity to participate in organizational decision making, lack of control over nursing work, inadequate resources, inadequate growth and promotion opportunities, insufficient economic rewards and the low status, importance, responsibility, respect and value attached to the job (Attridge & Callahan, 1989; Kazanjian & Wood, 1993; Lindsey, 1988). High job stress leads to job dissatisfaction, high turnover, absenteeism, and nurses leaving the profession (Attridge & Callahan, 1989). Carlson and Cowart (1988) and Speake (1988) identified a complex set of factors that negatively affect the supply of nurses, including salary/benefit issues, working conditions, and perceived professionalization. McCloskey (1990) investigated nurses' feelings about their work. She found that nurses with low autonomy and low social integration reported low job

satisfaction and work motivation, poor commitment to the organization, and less intent to stay on the job, which affects the supply of nurses.

Several studies have indicated that inadequate staffing or nursing shortages result in high turnover, increased hospital costs, and a negative impact on the quality of patient care (Flood & Diers, 1988; McKenna, 1995; Prescott, 1989; Prescott, Dennis, Geasia, & Bowen, 1985). The high turnover of nurses increased the costs associated with recruitment, hiring, orienting, and supervising new personnel. Lowered productivity, until the new employee gains experience in the position, also increased costs and interrupted continuity of care and work group stability (Wise, 1990). When asked to describe a quality workplace, nurses envisioned a place of employment with supportive, competent colleagues; clear intra-organizational communication; adequate staffing; autonomous roles that are appropriately reimbursed; emotional and resource support from superiors; a safe, comfortable environment; agreement on a philosophy and mission which guides decisions; primary nursing; intellectually challenging work; and clear role definition (Attridge & Callahan, 1989).

In response to nurses' dissatisfaction with work schedules, McGillick (1983) studied the effect of a modified work schedule on job, personal, and social satisfaction of 40 nurses in comparison with a similar group of 40 nurses with typical schedules. She concluded that more flexible scheduling can reduce burnout, job dissatisfaction, and turnover, thus enhancing retention of nurses. Kramer and Schmalenberg (1988) advocates decentralization and participatory management as a means for increasing staff

morale and motivation, as well as for increasing organizational efficiency and financial solvency; thus, resulting in better retention and increased productivity.

Waite, Buchan, and Thomas (1990) demonstrated that a significant number of nurses who were currently on a 'career break' intended to return to nursing. Reasons given for not returning to the nursing workforce were the lack of flexibility in working hours, lack of child care, and having to accept a position subordinate to the last position held. Buchan (1994) reports that most countries do not recognize the implications of nursing being a predominantly female workforce. In Pakistan, the implication of nursing being a female profession greatly affects all dimensions of NHRD such as supply, recruitment, retention, and production due to socio-cultural and economic constraints. Therefore, projecting requirements and determining supply is a difficult task.

### **NHRD Models**

Denton, Gafni, and Spencer (1995) and Kazanjian (1993) have contributed significantly to the body of research addressing nursing human resource planning. Denton et al. (1995) illustrate how the SHARP model, which has been discussed earlier, can be used to predict the future requirements for health services and the resources that will likely be available in order to meet these requirements. In one particular example, the model was applied to the population of nurses in the Province of Ontario, Canada. Input was provided on variables such as the nurses' place of employment, institution-based requirements, service delivery practices, the median age of the nurse workforce, the rate of early departure from the profession, and changes in practice related to new

technology. Based on demographic data and past trends, predictions were made such as: the overall requirements of nursing services will grow; most nurses will continue to be employed by institutions, followed by the community and lastly, in physicians' offices; the majority of nurses employed by institutions will work in acute care, 60% associated with medical/surgical beds and 25% with intensive care and obstetrics; and there will be little change in the median age of working nurses.

The implications of many nurses being employed part time or leaving the profession prematurely were addressed. For example, such actions contribute to a substantial loss in services. The authors demonstrated how the SHARP model can assist policy makers in planning for future nursing human resources. With this integrated systems approach, the implications of actions taken are viewed from the perspective of each element of the health care system (Denton et al., 1995).

Kazanjian and Chan (1984) developed a model for estimating nursing supply and requirement in which the demand for nursing personnel was developed directly from the demand for health services. A regression model was developed that defined nurse requirements as a function of bed stock, supply of physicians, relative supply of other nurse categories, relative wages of nurses, health care expenditure, and patient variables. In general, physician supply and bed capacity jointly accounted for 80% variation in nursing paid hours (Kazanjian & Wood, 1993). The authors concluded that the most influential factors for estimating future nursing human resource requirements are neither patient nor budget related. Birch et al. (1994) express two limitations with the use of regression techniques to predict future nursing needs. Firstly, estimates of the

requirements would include inefficient use of inputs (i.e., technical inefficiency) or insufficient mix of health care activities (i.e., allocation efficiency). Secondly, caution has to be taken in assuming that correlations indicate a causal relationship.

Reid (1990b) proposes the “National Manpower Planning” (NMP) model which is a supply-driven model for planning nursing resources. The NMP is most appropriate for the Caribbean region because the demand for health services will remain fairly constant, and the supply of nurses will continue to decrease (Reid, 1990b). Reid (1990b) describes the NMP model as consisting of four areas: “A data base which reflects a health information system and a manpower information system; an approach to demand forecast; strategies for manpower supply and retention; and areas for policy formulation” (p. 337).

The foundation of NMP model is a data base that is country- and situation-derived. The areas of analysis and the required data are as follows:

- ▶ Stage 1—information gathered on the national budget and sector allocations.
- ▶ Stage 2—the quantity and mix of nursing resources needed is compiled.
- ▶ Stage 3—health sector goals, objectives, policies, plans, and budget based on national health policy and reflecting information from stages 1 and 2 are outlined.
- ▶ Stages 4, 5, and 6—forecasting from both a demand and supply side is attempted.
- ▶ Stage 7—consists of strategies aimed at bridging the gap between the known supply of human resources and the predicted requirements (Reid, 1990b).

Demand forecast is represented by stage 4 of the model and has as its goal the optimization of manpower mix. Reid (1990b) states that the preferred method of demand forecasting is “a combination of health services demand, workload measures, and the economy of the health service” (p. 338). Reid also addresses the production and management components of HHRD. Major areas of analysis for determining demand of health human resources include: the characterization of health service utilization in terms of cultural and demographics of health consumers; economic factors; the cost factor of the health services market; and the assessment of constraints for the utilization of services. Similarly, areas for analysis for determining human resource supply are: factors influencing additions to the supply of health human resources; examination of the specialty and geographical distribution of health personnel; and analysis of labour force participation and utilization of health personnel.

Similar to other models the major limitation of this framework is that it assumes that reliable data sets exist in the country. Other assumptions implied in the model are existence and availability of information regarding health sector goals, policies, plans, and budget in the national health plan of a country.

## **Health Human Resource Development in Pakistan**

### **Historical Background**

A rudimentary form of human resource development existed at the time of independence of Pakistan. The Department of Manpower and Employment was established by the British in the pre-partition India. It conducted the first labour survey in

Pakistan which was used in the preparation of the first five year plan (FYP). In the 1960s, a National Manpower Council was established and assigned the task of planning and policy formulation for human resources in the country. In addition, a National Commission on Manpower and Education was created to conduct research on human resources and employment patterns (Ghafoor, 1984).

Manpower and Employment departments were also added to the provincial Directorates of Labour Welfare. In 1973, a manpower division was created at the federal level and the National Manpower Council was merged with it. During the fifth and sixth plan periods in the 1980s, employment projections generated by manpower divisions began to be used. In 1973-1980 some human resource development initiatives were taken by the government such as creation of the Ministry of Women Division (Ghafoor, 1984). The Manpower Division has published very little statistical data or research on human resources development or employment patterns (Nasim & Akhlaque, 1995).

Human resource development has been the most neglected factor in the process of economic development in Pakistan. While it is generally acceptable that health, nutrition and education are desirable, most conventional economists give higher priority to investment in power, transport, telecommunication, and industrial infrastructure (Cornia, 1997). Similar to other developing countries, Pakistan lacks real political democracy and justice, which has inhibited the effective support and participation of communities in the design and execution of social sector activities, thus reducing the effectiveness of already government interventions (Cornia, 1997). Other factors contributing to the neglect of HHRD include: lack of commitment, inadequate resources, and poor utilization of the

limited resource base (Banuri et al., 1997). For example, whenever there has been a shortfall of resources, the social sector has suffered the most. In the Annual Development Plan Expenditures 1993-1994, education and health ranked seventh and ninth among 14 sectors (GOP, 1995).

To date, Pakistan has been unable to implement a comprehensive plan in HHRD. This is evident in the imbalances in production, as well as distribution of health personnel. While there is a surplus of doctors resulting in unemployment or underemployment of doctors, there is a lack of qualified doctors in the rural areas. According to a recent government document, there is also a lack of skilled personnel for the successful planning, implementation, and monitoring of health programmes (GOP, 1995). The health care system is further characterized by ineffective production and poor management of health personnel, as well as a centralized bureaucratic system. Kennedy (1987) aptly described Pakistan's bureaucratic system as: "... the creation of the traditions, norms, and practices inherited from the British raj...and has been a critical determinant of Pakistan's political development" (p. 11). The centralized bureaucratic approach affects the morale and efficiency of health personnel. The power to appoint, remove, or transfer is vested in a handful of officials with seniority. Very few modern management techniques are practised; managers generally receive no formal training in management. Despite the existence of a formal appointment procedure, there is a perceived lack of transparency in making appointments and in promotions. Few incentives exist to promote effectiveness, efficiency, or innovation (GOP, 1995; UNDP, 1993; World Bank, 1993c).



There is rapid turnover of government officials in administrative jobs in both political and non-political positions. Political positions are dependent on the political stability of the country and the ruling party in power. The non-political administrative positions have high turnover rates because promotions are based on seniority by years in service. Therefore, an incumbent may get a senior position 6 months before retirement, and this promotion is tied to pension money and to some extent, to prestige. Thus, after 6 months, another incumbent may be promoted who may have a similar term of office. Rapid turnover and promotion, almost exclusively on the basis of seniority, also influence political will, accountability, and responsibility in a senior decision-making or policy-making position.

The health system planning process is driven by the budgeting process, not by programme planning. While budget-driven planning is a reality in any public sector system, in Pakistan, these processes have eliminated almost all the focus on service planning (World Bank, 1993c). Much of the service planning has evolved from the needs of the projects financed by the international aid agencies resulting in vertical programmes, thus creating additional problems (World Bank, 1993c).

Several donor agencies have assisted with the planning of HHRD in the country. In 1989 an Asian Development Bank (ADB)-funded process resulted in a Health Manpower and Training Plan (HMTP) for the 20 year period from 1990-2010 for all health cadres of the country. Problems identified by the ADB consultants included limitations of existing data bases; a general lack of knowledge and awareness of management skills, or understanding of factors contributing to shortages and wastage;

and the lack of continuing education opportunities. Several recommendations were made to the federal Ministry of Health. These included the development of a health human resource information system, institutionalization of HHRD at the federal and provincial levels, inclusion of private sectors in planning of HHRD activities, and coordination of HHRD with the overall planning of health systems (ACTS, 1990; French, 1993). The Health Manpower Training Plan report suggested staffing of all government facilities according to established standards, and focussing on preventive and promotive services. Based on this plan, human resource development units were to be set up in each province to facilitate implementation of the recommendation of these consultants (ADB, 1992). Recent follow up however indicates that the units have not been established in the provinces (personal communication, Dr. Bashir-ul Haq, May 22, 1996).

Expenditure on personnel is the largest single factor in recurrent health expenditures. Although 60-80% of the health sector budget is spent on salaries of health personnel, there is neither adequate planning for production and effective utilization, nor any research to study the issues of human resources in the country (GOP, 1995). The government has consistently identified the need for HHRD in the country and has sought advice, as well as resources from funding agencies in order to improve the health care delivery system.

### **Nursing Human Resource Development in Pakistan**

The major challenge to the further development of nursing in the country is inadequate nursing human resource which has persisted for the last five decades (GOP,

1995; Mohsin, 1993; Wazir Ali 1993). Nursing continues to face critical problems, both in the quality and in the number of trained nurses. In the 50 years since independence the number of nurses has increased, but it has not kept pace with the increased demand. The demand for nurses is increasing in association with rapid population growth, advances in health technology, shift in the patterns of diseases, rising social expectations, and rapid growth of the health industry (GOP, 1995). Although nursing personnel increased in Pakistan in relative terms by 103% between 1965 and 1983, this was only enough to increase the ratio of nursing personnel from one nurse per 9,900 persons to one per 4,890 (Brihaye, 1994). The Economic Survey of 1995-1996 indicates one registered nurse for 5,681 persons (GOP, 1996).

Pakistan has 85 schools of nursing offering a 3 year basic diploma programme leading to an RN (Registered Nurse) license to practice and 1 year midwifery training leading to an RM (Registered Midwife) license, and six public health schools (public sector) providing 2 year lady health visitors (LHVs) training. Post-basic education includes one post-RN bachelor programme established in 1988 and a 4 year generic bachelor programme established in 1997, both of which are offered in the school of nursing in a private university. One year post-basic programmes in specialty areas such as pediatrics, intensive care, community health nursing, and anaesthesiology are offered to RNs at three of the four colleges of nursing in the country. Preparation for teaching and administrative positions is through the 2 year post-basic diploma in administration and teaching programmes offered at all four colleges of nursing. That preparation is required for advancement beyond the staff nurse's level. Production of nursing personnel

has focussed predominately on preparing RNs at the diploma level. Access to higher education is very limited in the country. No post-basic education is available for LHVs other than through diploma programmes in nursing (Alam Zaib, 1993).

Garsonnin's (1994) survey of nursing and LHV postings in educational and associated service institutions in Pakistan provided a data base for nursing to demonstrate to the government the interdependency of nursing education and nursing service. Garsonnin reported that student nurses were providing major portions of the hospital services and that there were no clinical instructors to supervise these students on the wards. The study also indicated that although 92% of the sanctioned posts for staff nurses were filled, this only represented 76% of the Pakistan Nursing Council's (PNC) standard ratios of three nurses for 10 beds. The response rate was 55.3% and the reliability of data collected may be queried due to the use of a mailed survey. Production of nursing personnel has focussed predominately on preparing RNs at the diploma level.

The authors of a comprehensive health manpower report (ACTS, 1990) recommended an increase in the present number of nurses by 300%. The consultant cautioned that the estimates were based on quantitative data that needed updating and verification. They strongly recommended that qualitative data, which was currently not available, should be obtained for comprehensive NHRD to take place. Although representatives of both organizations, the Pakistan Nursing Council (regulatory body) and the Pakistan Nurses' Federation (PNF) (professional association), participated in the development of the Health Manpower Training Plan, neither have developed a systematic action plan.

Delvoie (1993), stressed the need for sustainable human resource development and summarizes well the need for nursing human resource development. He advised:

Increasing the number of highly qualified nurses is one step. But there is more to harnessing Pakistan's full potential in this area than churning out new graduates. Quality care is a function of well-educated personnel, but it also depends on a broad range of factors. First, there is the requirement for strategic planning to ensure the resources are developed and deployed where they will have the most impact. Second, once the resources are developed, they must be given due recognition. This takes form of salaries commensurate with qualification and integration into the health care system in positions where they can make best use of their expertise and are accorded appropriate respect. Third, they must take their place between the policy makers and planners to play a critical role in determining the future of the profession and its role in influencing the overall approach to health care (p. 7).

In 1992, two World Health Organization consultants were given the assignment of planning nursing human resource in Pakistan. They were unable to carry out the assignment due to the absence of reliable data, particularly on nursing human resources. They reported that there was a "poorly developed understanding of human resource development and its importance to delivery of health care...it is extremely difficult to estimate the real size and nature of the problem or to understand the development of (nursing) workforce" (Ministry of Health [MOH], 1992, p. 1). They made recommendations that a situational analysis of NHRD be conducted to obtain information in a planned and systematic manner (MOH, 1992). Realistic and consistent data are required to form the bases and rationale for planning and implementing nursing human resource activities in Pakistan.

### **Nursing Human Resource Policies**

Nursing human resource policies have been embedded in almost all the five year plans (FYPs) released by the government of Pakistan. In the Fifth Five Year Plan (1978-1983), targets were set for the number of health personnel to be available at the end of the period (Table 3.1a) and the number to be trained (Table 3.1b).

**Table 3.1a**

#### **Fifth Five Year Plan (1978-1983)**

Health Manpower	Target	Achievement	Percent
Doctors/dental surgeons	13,512	10,203	75.51
Nurses	4,780	4,426	92.59
Paramedics/auxiliaries	24,886	13,576	54.55

Source: Adapted from GOP. (1978). The fifth five year plan, 1978-1983. Islamabad: Planning Commission.

In Table 3.1a achievement refers to estimated number of health personnel present in each category.

**Table 3.1b**

Training of Health Manpower	1978		1983	
	Number	Year Output	Number	Year Output
Medical colleges	15	4,000	16	4,260
Dental schools	4	117	4	120
Nurse training schools	28	750	44	840
Lady health visitor training school	8	389	10	600

Source: Adapted from GOP. (1983). The sixth five year plan, 1983-1988. Islamabad: Planning Commission.

The Sixth Five Year Plan (1983-1988) focussed on planning and production issues as indicated below:

- ▶ Increase the output of nurses by 200 per year to graduate a total of 1,000 per year; total of 5,000 nurses in 5 years. Target ratios to be achieved one nurse for every five patient beds.
- ▶ Award BSc (Nursing) degree.
- ▶ Recruit male nurses in the regions with insufficient lady recruits.
- ▶ Delink service from education with an allocation of rupees 140 million for training of nurses.

In the Seventh Five Year Plan (1988-1993) (GOP, 1988), the planning, production, and management issues of nursing human resources were included as below:

- ▶ Achieve an increase of 10,000 nurses in a phased manner. Target ratio to be three nurses for every ten beds.
- ▶ Change entrance qualification to RN programme from 10 years to 12 years of education.
- ▶ Award BSc degree to nurses.
- ▶ Status of nursing and working condition to be improved.
- ▶ Faculty to be provided necessary facilities, better pay, career prospects, and residential accommodation.
- ▶ More institution setups for training specialty nurses.

- ▶ **Imbalances in the existing health human resource development to be removed with special emphasis on enhanced output of specialists, nurses, and paramedics.**
- ▶ **Managerial capacity of the public health system to be improved.**

**By the end of the Seventh Five Year Plan, the following goals were to be achieved:**

- ▶ **One doctor for 2,280 persons.**
- ▶ **One dentist for 47,200 persons.**
- ▶ **One primary health care facility for 10,500 persons.**
- ▶ **One hospital bed for 1,380 persons.**
- ▶ **One nurse for 5,900 persons.**
- ▶ **An auxiliary for 880 persons.**
- ▶ **A dai for 1,800 persons.**

**In the Eighth Five Year Plan (1993-1998) (GOP, 1993), the focus on nursing was exclusively on management issues:**

- ▶ **Nurses to be given better pay scales and better recognition to overcome shortage and enhance status.**
- ▶ **Development of a sound career structure for all nursing personnel.**

**As reflected in the FYPs, the major concerns of the governments may be summarized as: supply-requirement imbalances, imbalances among cadres of the health care workers; imbalances in distribution of health care workers; inadequacies in number**



and qualification of applicants to education programmes in nursing; inadequate numbers of training/educational facilities; need to delink nursing services and education; need for higher education for nurses; inadequate nurse-patient bed ratios; poor working conditions for nursing personnel; and the lack of a sound career structure. If implemented, these policies could have brought about significant change in nursing human resource and the profession as a whole. While HHRD policies have addressed all health personnel, implementation has focussed on increasing the number of doctors, and the supply of nurses and other female cadres have lagged behind (GOP, 1995).

Many of the policies have not been implemented. For instance, delinking of nursing education from service as planned in the Sixth FYP has not been done. Areas such as the quality of education, nursing research, and improvement in the work life environment have received little, if any, importance in these policies.

According to the Eighth FYP, imbalances were identified in the production of different categories of all health care workers (including nurses), and the geographical distribution of the workers. Ad hoc planning to resolve the nursing human resource issues has led to inefficient training and utilization of nursing resource, inhibiting the progress of the nursing profession, and adversely affecting the health of the population. In Pakistan almost 100% of the nurses are found in the curative sector providing tertiary care (Harnar, Amarsi, Herberg, & Miller, 1992). Unlike most countries, the physician-nurse ratio in Pakistan is 4:1 (GOP, 1990). Estimated statistics indicate 17% of health care professionals work in the rural areas where approximately 70% of the population

resides (ACTS, 1990). There are no figures available on the geographical distribution of nursing personnel.

A nursing shortage has been identified by the governments, as well as by the nursing professional bodies. Estimated statistical data support the existence of such a shortage but, neither the government nor the nursing professional bodies have conducted systematic studies to establish the magnitude of shortage and/or to determine the contributing factors.

### **Current Situation**

The nursing human resource development situation in Pakistan is unclear. The demand for nurses is increasing in the country due to rapid population growth, advances in health technology, shifts in the patterns of the diseases (GOP, 1995), rising social expectations, and rapid growth of the health industry. There is no effective system to plan, monitor, or evaluate the relationship between supply-demand, utilization, and distribution of nurses. Why are these problems recurring? What is the real situation of nursing human resources in Pakistan? Without understanding the issues affecting human resource development, nursing's role, status, and image will remain outside of nursing's direct influence (Donner, Semogas, & Blythe, 1994).

### **Situational Analysis**

There is a need to conduct a situational analysis of nursing in order to gain understanding and insight into the current NHRD situation. A situation is defined as a description of the state of affairs at a specified time. Analysis is defined as breaking

down the state of affairs into component parts to find out its characteristics. A situational analysis of the nursing human resource assists in identifying: (1) perceptions behind the existence of the state of affairs of nursing human resources; (2) what should or should not be changed; and (3) future opportunities and direction.

Green (1995) advocates that prior to the development of any plan at any level (national, provincial, and institutional), the first stage is to improve the understanding of the current situation. Situational analysis of a health sector provides a comprehensive view of all aspects of a health scene, brings out new insights, gives a common reference point for the planning process, and allows the selection of priority areas of concern. In a developing country such a document has important potential as background for the health sector which the external consultants and donors frequently request and require. One aspect of any situational analysis is the policy and political environment which includes existing national health policies and any particular circumstances directly related to a health sector (e.g., attitudes of physicians, political stability) which have a bearing on the development of a plan (Green, 1995).

#### **Selection of a Conceptual Framework for Studying NHRD in Pakistan**

Burns and Grove (1993) propose that a conceptual framework is a “set of highly abstract related constructs that broadly explain the phenomenon of interest and expresses assumptions” (p. 179). It explains the key concepts, factors, or variables to be studied either graphically or in narrative form. Graphic displays of these concepts/factors/

variables specifying relationships are useful in making the framework clearer (Burns & Grove, 1993; Miles & Huberman, 1994).

Several models of HHRD (Birch et al., 1994; Denton et al., 1995; Hall, 1993; Kazanjian, 1991; Reid, 1990b; WHO, 1990) exist but the focus is primarily on the planning of human resources, that is, in projecting needs or assessing demands; the other two components of production and management were not explicitly addressed. In addition, these models assume comprehensive and accessible data bases, that are nonexistent in many countries, including Pakistan.

The WHO's (1990) Coordinated Health Human Resource Development (COHHRD) framework does address all three components of planning, production, and management but most of the countries have found this framework to be difficult to use as it does not identify nor define explicitly the variables in each component. As well, the model requires that HHRD be incorporated with a country's overall health and socioeconomic planning. Hall (1993) developed guidelines which provided explicit information as to how to conduct an HHRD study in the developing world. Hall, similar to COHHRD framework, conceptualized HHRD as comprising of three components: planning, production, and management. Hall (1993) adapted the definitions of these components as presented in the COHHRD framework.

Health human resource planning is defined as the process of estimating the number of health personnel and the kind of knowledge, skills, and attitudes they need to achieve predetermined health targets and ultimately health status objectives. Human resource policy refers to statements made by relevant authorities intended to guide the

allocations of resources and effort. Production is concerned with both basic and post-basic education and training of the health labour force. Human resource management is defined as “mobilization, motivation, development, and fulfilment of human beings in and through work” (WHO, 1990, p. 10). Hall (1993) views management as all matters “related to the employment, use, and motivation of all categories of health care workers, and largely determines the productivity, and therefore the coverage of the health service system and its capacity to retain staff” (p. 41).

Hall (1993) expanded upon the COHHRD approach by explicitly outlining the variables to be considered for each component of planning, production, and management (Table 3.2). These variables should guide data collection for a comprehensive examination of the three components and be modified to make them country-specific and relevant to the phenomenon studied. Hall encouraged that the guidelines be used in several countries to test their applicability for conducting a preliminary study on HHRD.

However, prior to conducting such a comprehensive situational analysis, Hall (1995) has recommended initial steps to be taken to identify problem areas. Those steps should include: a policy review, determining the perceptions of key stakeholders, and the use of preliminary data in areas such as health facilities, educational and/or training institutions, staffing standards, and workforce management. These steps allow for problems to be identified and steps taken to achieve consensus on a vision to guide HHRD.

Table 3.2

**Variables in the Components: Planning, Production, and Management**

Variables		
Planning	Production	Management
Demographic variables	Number of basic and post-basic schools	Conditions of work: full time, part time, private practice
Number of health workers by type, major areas of activity, level of care	Annual intake and output	Work schedules, duty rotations, staff coverage for health workers
Positions sanctioned, filled, vacant	Number of the faculty	Career advancement, pre-job orientation, clear job descriptions
Migration: interprovincial, urban/rural	Curriculum	Existence of personnel policies
Health facilities survey (10-15%): distribution, size, capacity, productivity, staffing density, terms of employment, quality of care	Applicant, entrants, enrolments, and graduates	Procedures for staff recruitment, selection, placement, and promotion
		Salary scales, merit increases, monetary and non-monetary incentives, staff morale, apparent job satisfaction
		Qualification for practice, licensure, registration
		Shortages/surplus of personnel, equity of distribution of personnel, staff turnover

Source: Hall, T. L. (1995). Guidelines for a human resource development study. Geneva: WHO.

For a study of a single cadre of health workforce personnel, Hall (1993) advised that the initial steps include conducting a policy review and interviewing leaders to obtain their perceptions of human resource development specific to that cadre. He suggested

that situational analysis would be a preliminary study to a larger study undertaken for the planning of HHRD.

A policy review before interviewing the leadership groups helps to identify: the issues to be addressed; the political environment for planning; aspects of a health system and health workforce that are of great concern in the country; and potential support, as well as opposition that might be encountered during the conduct of the study. Hall (1995) proposed conducting semi-structured interviews, 40-60 minutes in length, with 30-40 key decision makers. He suggested interviews include senior government officials (key stakeholders) from ministries such as Health, Education, Finance, and Labour.

In this study, Hall's (1995) suggestion regarding a policy review and interviewing leaders was followed. The variables in the components were modified to make them country-specific. Modification was based on policy review which revealed major issues of concern by those formulating the FYPs.

### **Social Construction of Reality and Perception**

An interview of key stakeholders will include some fact, as well as their perceptions of a situation. In order to ascertain perceptions, it is important to integrate theoretical constructs that influence people's perceptions. The reality within which individuals conduct their lives is primarily of their own construction. People's perceptions are their reality and how they see and filter reality is their paradigm, or frame of reference within their setting. "Perception is the sorting out, interpretation, analysis, and integration of stimuli from our sensory organs" (Feldman, 1993, p. 136). Perception

is the mental image of self derived through the senses; a person's behaviour is the direct result of how one sees oneself, how one sees the situation in which he is involved, and the interaction of these two (Combs, Blume, Newman, & Wass, 1974; Hughes et al., 1991). Studying perception provides information about feeling, values, opinions, attitudes and beliefs, and motives that help in understanding the individual and his world (Combs et al., 1974; McCormack, 1992).

Dilthey (1981) stated that "we can explain nature; we must understand human beings" (cited in Reason & Rowan, 1981, p. 64). This statement emphasizes the difference between explanation and understanding as approaches to knowledge. In the interpretive sciences, the aim is to understand the phenomenon in order that the gained insight will result in a changed relationship between the researcher and the phenomenon.

A number of authors (Allen, 1985; Glaser & Strauss, 1967; Keat & Urry, 1982; Reason & Rowan, 1981) contend that a form of science built on the framework of social theory is necessary to study humankind. The individual is a social being who lives in a society. Meanings are derived in a socio-cultural and historical context: knowledge is socially constructed. Hence, to understand humans is to understand the socio-historical forces that shape a given culture at a given time (Herberg, 1989). The school of thought that reflects this position has been termed the "sociology of knowledge" (p. 7).

According to Berger and Luckmann (1967), the sociology of knowledge concerns itself with whatever passes for knowledge in a society, regardless of its ultimate validity. Similarly, Bierstedt (1981) states that knowledge does not need to be true to be effective.



He reinforces “when men define situations as real, they are real in their consequences” (p. 3).

Berger and Luckmann (1967) further state that reality is socially constructed and that the aim of sociology of knowledge is the analysis of the processes in which this social construction of reality occurs—the relationship between the human thought and the social context within which it arises. Our understanding of reality is conditioned by socio-historical context. The sociology of knowledge aspires to reveal the ways in which social relations and cultural traditions influenced the development of knowledge and its transmission and maintenance in social situations.

Perception is affected by individual experiences, early childhood learning, and cultural background (Gamson & Modiglioui, 1987). Factors such as life experiences, needs, motivation, values, expectations, and cognitive style influence the perceptual organization of sensory information. Leavitt (1985) explains further that the world as seen by us is not necessarily the real world. Our response depends on what was heard, not on what was actually said.

### **Purpose of the Study**

The intent of this study is to obtain the perceptions of key stakeholders on the current situation of NHRD in the Province of Sindh, Pakistan. The perceptions of these leaders are sought because their values and beliefs play an important role in the planning of health care, decision making, and formulating and/or implementing policies regarding NHRD. Knowledge of their perceptions of the current NHRD situation is essential for gaining insight and a better understanding of the situation and providing critical

background information. Their perceptions are indicators of the reality they have constructed regarding the NHRD situation. The study will explore the importance of context, setting, and the key stakeholders' frame of reference. The significance of culture, values, and societal norms as a way of understanding complex social phenomenon has been increasingly acknowledged by planners of HRD (Hall & Mejia, 1978; Kazanjian, 1995; WHO, 1990). The perceptions of the stakeholders will generate a synthesis of facts, and vested interests and values through which they may influence the policy-making process.

### **Policy-Making Process**

Information on the perceptions of key individuals provides a greater understanding of constructs (e.g., values, culture, social, political) which influence policy formulation. Lomas (1993) advocates that the policy-making process requires the examination of the best available evidence (facts), the interpretation of the evidence (vested interests), and understanding of the underlying values of the policy makers. He advises that the perception of the stakeholders be incorporated into the steps of defining the problem and selecting from alternative policies.

In the health policy literature, key stakeholders are commonly defined as people who have a stake in or are affected by policy outcomes. Charles, Schalm, and Semradek (1994) obtained politicians' perceptions through semi-structured interviews to facilitate a planning and policy formulation process. For this study the stakeholders are senior

government bureaucrats and nursing leaders. These stakeholders are involved in formulation and implementation of health policies.

### **Research Questions**

The research questions are:

- Q1. (a) What are the perceptions of key decision makers regarding planning, production, and management of NHRD?
- (b) What differences and similarities exist, if any, between decision makers at various levels and of different affiliations?
- Q2. What are the issues identified regarding the current NHRD situation in relation to specific aspects of planning, production, and management of NHRD as perceived by the stakeholders?

## **CHAPTER 4**

### **STUDY METHODS**

This chapter presents the research methods used to conduct the study. The study design and procedure are described. The study procedure includes a description of the sample (sampling strategy and sampling frame), key stakeholders, and development of the interview guide. The processes of data collection, data management, and data analysis are explained. Information on the context of data collection and the coding process is included. Limitations and generalizability of the study are also addressed.

#### **Study Design**

Since this study was dealing with the relatively unexplored phenomenon on nursing human resource development (NHRD) in Pakistan, a qualitative methodology, using a descriptive exploratory design, was chosen to capture the perceptions of key decision makers. A qualitative approach is used to obtain key insights into the phenomenon being explored, where face-to-face interaction is desired for holistic inquiry and for in-depth investigation of the complexities of a phenomenon (Field & Morse, 1985; Marshall & Rossman, 1989; Patton, 1990).

## **Study Procedures**

### **Sample**

***Sampling strategy.*** A purposive sampling strategy (Miles & Huberman, 1994; Patton, 1990; Sandelowski, 1995; Willms & Johnson, 1993) was selected to yield the information required to study the phenomenon. A purposive sampling involves seeking out groups, settings, and individuals for whom the processes being studied are most likely to occur (Denzin & Lincoln, 1994). The purpose of the sampling strategy in this study was to obtain perceptions of key stakeholders who were involved in the formulation and implementation of health policies regarding NHRD in the Province of Sindh, Pakistan. Key stakeholders in this study were individuals who were in position to be knowledgeable and articulate, and whose insights would prove particularly useful (Patton, 1990). They were chosen, “because of their areas of knowledge, status, role, sex, and years of experience, with or about the domain of inquiry” (Leninger, 1985, p. 47).

***Sampling frame.*** The sampling frame for this research consisted of two classifications of key stakeholders: affiliation and level.

1. **Affiliation:**

Green (1995) and Sabatier (1988) report that one of the key variables affecting key stakeholders’ perceptions is their occupational positions. By virtue of their position and potential influence, the study sample was judged to be what Patton (1990) refers to as “information rich cases” (p. 169).

The governments (federal and provincial), the nursing regulatory body,<sup>1</sup> and the professional nursing association were identified as key stakeholders in NHRD in the country. Consultation with several retired senior government officials led to the identification of positions within the government, whose incumbents influence policy formulation, health planning, and implementation with respect to NHRD. The sample consisted of bureaucrats, nursing and non-nursing personnel, and current and retired government officials<sup>2</sup> at the federal, provincial, and local levels. Nursing personnel in leadership positions in the nursing regulatory body and professional nursing associations, including current and retired, were also selected as key stakeholders. These nursing leaders were or had been in a position of influencing policy formulation, health planning, and implementation. Some of these nurses also occupied senior positions in the government.

## 2. Levels:

The sample was selected to reflect the macro (senior leaders), meso (middle management), and micro (lower management) levels. At the macro level were government officials and nursing personnel at the federal level, nursing leaders in the national nursing regulatory body, and the national professional association. At the meso level were provincial government officials and nursing leaders from the Directorate of

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<sup>1</sup>The regulatory body is a semi-autonomous organization established under an act of legislation. The members are government employees.

<sup>2</sup>A number of nurses were government officials, but for the purpose of this thesis, the term government officials will be restricted to non-nurses in the sample.

Nursing of the Sindh province and nursing leaders in the provincial professional nursing association. At the micro level were government officials and nursing leaders at the local (institutional) level in the province and leaders from the local professional nursing association.

### **Key Stakeholders**

The number of possible key stakeholders was identified as 39, a total of 34 were available and accessible for an interview. The key stakeholders by level and affiliation consisted of:

- a) Government officials from the Ministry of Health, Planning Commission, Establishment, and Finance Departments at the federal level; and Planning and Development Department, Finance and Health Departments, including Directorate of Health of Sindh at the provincial level; and from institutions in the province at the local level;
- b) Nursing leaders from the Ministry of Health and Pakistan Nursing Council (regulatory body) at the federal level; key members of the Pakistan Nurses' Federation (professional nursing association) at the federal, provincial, and local levels; senior nursing personnel from the Directorate of Nursing at the provincial level; and senior nurses from provincial institutions at the local level.

The key local stakeholders were from four hospitals (provincial institutions): two in urban and two in rural areas. These hospitals were chosen because each had a school of nursing and were accessible. The hospitals represented about 17% of the total

hospitals with schools of nursing in the Province of Sindh. Hospitals with a school of nursing were chosen in order to obtain information on production of nursing human resources. The breakdown of the sample is presented in Table 4.1.

**Table 4.1**

**Sample by Affiliation and Level of Key Stakeholders**

Levels	Affiliations		Total
	Nursing Personnel	Government Officials	
Federal (macro)	5	7*	12
Provincial (meso)	4*	5	9
Local (micro)	10	3	13
<b>Total</b>	<b>19</b>	<b>15</b>	<b>34</b>

\*Each comprised of one retired key stakeholder.

**Development of the Interview Guide**

Semi-structured interviews captured the perception of the key stakeholders. A semi-structured interview, appropriate for exploratory descriptive study (Miles & Huberman, 1994), obtains facts, feelings, world views, and other kinds of information that provide the researcher with comprehensive data about people, places, events, symbols, and patterns (Patton, 1990).

Hall's (1993) framework was used to develop the interview questions; these questions were based on the three components of HHRD (planning, production, and management). Selected study variables (Table 4.2) were used to develop probes (Appendix D). Two variables, health policies and involvement in planning, were



incorporated to augment the analysis of existing health policies, that is, the FYPs. The selection of study variables was based on the country-specific major issues reflected in the FYPs.

**Table 4.2**

**Nursing Human Resource Development**  
**Selected Study Variables**

<u>Human Resource Planning</u>	<u>Human Resource Production</u>	<u>Human Resource Management</u>
Relevant health policies	Educational capacity	Working conditions
Involvement in planning and implementation (e.g., FYPs)	Faculty-student ratio	Salary scales and benefits
Current nursing human resources	Role of education in preparing nursing personnel	Job satisfaction
Sanctioned positions for staff nurses in the province		
Distribution of nurses across the provinces and within health services		

Probes were used to give structure and direction to the interview. Probes that would introduce biases were avoided (Burns & Grove, 1993; McGracken, 1988). A funnel approach to the interview was used. That is, general questions were asked initially, followed by specific questions in order to probe further into the phenomenon. For example, the initial question, “What are your views about the nursing human resource development situation in Sindh?” was followed with a more specific question, “Could you elaborate on the issue?” Information on factors that influence implementation of five

year plans were elicited through probes such as, “Why do you think FYPs are not implemented? What factors do you think might facilitate implementation?” Further probes such as, “What is your opinion about sanctioned posts?” were used to add specifics of the phenomenon, stimulate discussion, and clarify the concepts. The approach allowed the interviewer to move from general to specific content, and was designed to make the respondent feel more comfortable (Oppenheim, 1996; Sudman & Bradburn, 1988). Demographic information on the interviewee was elicited at the end of the interview (Burns & Grove, 1993; McGracken, 1988; Oppenheim, 1996; Sudman & Bradburn, 1988).

Open-ended questions were used throughout the interview to allow the respondents to be spontaneous as they presented their perceptions and viewpoints. As suggested by Oppenheim (1996), the researcher aimed for “stimulus equivalence” (p. 87), rather than rigidly asking “exactly the same thing” (p. 87).

The interview questions were pretested on three retired government officials (one nurse and two non-nurses), to refine the approach and the process. Pretesting allowed for modification of the design of questions and probes, sensitivity of language, and procedure for recording responses. For example, the researcher was advised that government officers would generally not like to give written consent; verbal consent would be more acceptable to them. The researcher was also advised as to the style and mode of language that could be used with the government officials, particularly at the federal level.

## **Data Collection**

### **Procedure**

The majority of the interviews were scheduled by telephone by the researcher. A few interviews, particularly with federal government officials, were arranged with the help of senior nurses at the federal level. The length of the interviews ranged from 20 minutes to 2 hours. All interviews were conducted at the stakeholders' places of work except two, which were conducted at homes of retired key stakeholders (a non-nurse at the federal level and a nurse at the provincial level). Verbal consent was attained from all stakeholders. The purpose of the study and the nature of the interview were explained by the researcher, either at the time of the request for an interview, or at the beginning of the interview.

Measures were taken to ensure that the respondents felt comfortable and non-threatened during the interview. The interview process was facilitated by the researcher's background, familiarity with the local language, and adoption of cultural norms (e.g., having a conversation over a cup of tea prior to the interview) as recommended by Rew, Bechtel, and Sapp (1993). Patton (1990) emphasizes the researcher's credibility as the "instrument of data collection and the centre of data analysis" (p. 461).

Permission was sought at the beginning of the interview to audio-tape the session. All the nursing personnel agreed to having the interview audio-taped, but only 4 out of 15 government officials (1 former federal employee, 1 federal, 1 provincial, 1 local) agreed to audio-taping. In situations where audio-taping was not possible, the responses were

written. To maximize recall, each of the non-taped interviews were written out in detail within 3 days of the interview. Although preferable, it was sometimes difficult for the researcher to write out all the interviews the same day because of the long distances travelled between sites.

In several instances, the nurse respondents were apprehensive about being audio-taped. Some of the informal conversations prior to interview was recorded and played back to them, to overcome their apprehension. Other respondents were anxious about providing the right answers; they were reassured by clarifying that there were no right or wrong answers and that the researcher was interested in their opinions only.

When initiating discussions on NHRD, preliminary explanation of HHRD and its components was required. The majority of respondents, particularly at the local level, needed clarification regarding the terminology used during the interview. A few respondents answered spontaneously and did not need any explanation. Hall (1993), in his framework, did not define the variables, therefore a consistent explanation of each variable was prepared by the researcher and provided to the respondents. Two key stakeholders at the federal level had been involved with foreign agencies on HHRD projects in Pakistan and did not need an explanation. Some of the government officials preferred the synonym manpower development to human resource development.

Field notes were made at the time of each interview describing the context of the interview, impressions, verbal and non-verbal cues, reflections on what was said and how it was said. Field notes included issues that were discussed but were not included in the interview, for example, discussion on India's and Pakistan's politics.

Confidentiality was maintained by assigning code numbers to participants in the study. Each set of interviews, notes, and transcription was identified by its code number. Anonymity was maintained by code numbers placed on each interview form with no other identifier. A master list was prepared with the interviewees' names, positions, and code numbers. The master list was locked in a safe area in the researcher's office. The tapes and transcriptions were kept confidential and stored in a secure place.

### **Context**

Conducting interviews for a research study with decision makers from the public sector in a developing country, is a very challenging and difficult task, particularly in a country like Pakistan in which the officials are operating in a complex bureaucracy and in a chaotic political environment. If research were to follow rigid procedure or protocol in such situations, valuable data would be lost (Patton, 1990).

During the time of data collection, when the interviews were being scheduled and conducted, the Chief Secretaries Office of the Province of Sindh announced the transfer of 35 officials of the highest grades, almost all in key positions in the Department of Health. The transfers were to be effective immediately. The reason stated for the transfers was "to be in public interest" (Dawn, 1997, p. 1). It is important to note that elections in the country had taken place only 3 months prior (February 1997) and the elected politicians had brought about this change. This event illustrates that political influence plays a major role in transfers and postings of health human resources and that changes in political conditions can result in rapid changes within the health workforce.

This event had significant impact on data collection. The incumbents of many of the designated positions for inclusion in the sample were new in their jobs; therefore they would not have the relevant knowledge or experience. Thus, it was decided that, where possible, the stakeholders would be the former occupants of the positions. In some cases, it was not possible to interview those persons, as some of the officers were on long leaves before assuming new positions. In those instances, the next most appropriate position was selected (Miles & Huberman, 1994; Sandelowski, 1994; Strauss & Corbin, 1990). For example, an Additional Secretary was interviewed as the Secretary of Health was not available.

In a second situation, on a day when interviews were to be conducted, the paramedical staff of an institution went on strike without prior notification. After a delay of about 2 hours the interviews took place, but one of the interviewees was not available as he was injured during the strike. The interview could not be rescheduled as he went on leave for an indefinite period. The interviews that took place on site were frequently interrupted as the interviewees were trying to solve the human resource problems resulting from the strike.

### **Cultural Context**

Cultural traditions also influenced data collection. Unlike North Americans, who generally expect that time be planned and future events fit into the schedule, many of the stakeholders exhibited the informal pattern of time common in the Middle East and South Asia (Hall, 1989). The interview period consisted of an initial phase of 15-60 minutes,

characterized by an exchange of information on topics not directly related to the purpose of the meeting, and the serving of tea. The second phase focussed on the interview questions. This custom had its own advantages and disadvantages. It was helpful because sometimes the stakeholders were ready to give an interview at very short notice (less than an hour) and the initial phase served the purpose of becoming acquainted with the respondents.

The interviews were characterized by another cultural tradition, described by E. T. Hall (1990) in his book *The Silent Language*, that is, the concept of polychronic P-time system. Hall describes this system as “involvement in several things at once” (p. 45). Time was seldom seen as wasted and a leader dealt with many people and tasks simultaneously. The concept of privacy was not present. Thus, it was common practice for government officials to conduct the interviews when other persons were seated in the office and/or when persons were entering and leaving the office. Also, the interviewee sometimes was involved in several matters simultaneously. Interestingly, this behaviour was not demonstrated by nursing leaders, who maintained the interview time and privacy, although they did socialize over a cup of tea during the pre-interview phase.

### **Data Management**

In this study, computers were used for data preparation, while other aspects of data analysis such as data identification and data manipulation (Reid, 1992) were performed manually. All audio-tapes and field notes were transcribed and stored as WordPerfect files. A paper copy of each of the interviews was prepared with a right-

hand margin of 3.5 inches. Each line in each interview was numbered for identification and to facilitate coding. An audit was established by documenting a running log of study decisions and activities in the researcher's notebook. The documentation included: written field notes, process notes such as development and pretesting of interview guides, procedures for coding, and developing categories and rationale for presentation of findings. The trail also specified time and date so that the sequence of decisions and activities could be followed. These activities are consistent with the recommendations of Lincoln and Guba (1989) and Merryfield (1990).

For confidential purposes each interview was assigned an identifier. The first one (or two) number(s) denoted the interview number; a second letter indicated the level of the respondent (federal, provincial, or local/institutional), and the last two letters signified the affiliation of the respondent (nursing personnel or government official). For example, 1FGO refers to interview number one, federal level, government official; 20PNP refers to interview number 20, provincial level, nursing personnel; and 30LNP refers to interview number 30, local level, nursing personnel.

### **Coding Procedure**

An inductive coding technique (Strauss & Corbin, 1990) was adopted. Codes are efficient data labelling and data retrieval devices which accelerate analysis (Miles & Huberman, 1994). Codes were generated "manually" (Creswell, 1994; Miles & Huberman, 1994) using the following process. A subset of data (six interviews, one from each level and each affiliation of key stakeholders) was used to generate initial codes



(Weber, 1985). The interviews were read and the text reviewed in each paragraph. A phrase or statement was written in the column beside each paragraph that best described it. Key quotations were highlighted and insights were noted in the margin. Words and phrases that were similar in characteristic were clustered and given a code, which were further clustered into a category. Clustering can be applied to many levels and involves clumping things that go together and is the “process of inductively forming categories and iterative sorting of things” (Miles & Huberman, 1994, p. 249). A category for the purpose of the study is defined as a grouping of data, similar in characteristics, that reflect a dimension of a component. A preliminary coding scheme consisting of these codes and categories was generated from the subset of data.

Three interviews were given to two analysts, a nurse and a non-nurse, to code independently using the coding scheme. This was done to identify ambiguities, overlaps, and lack of clarity in the coding system (Knafl & Webster, 1988); and to enrich analysis and ensure validity of the emergent variables (Willms & Johnson, 1993). Based on their feedback, additional categories were added. These categories were then grouped under the three fundamental components (planning, production, and management) comprising the overarching organizational human resource development conceptual framework. Additional categories not contained within the original conceptual framework also emerged. These were coded under a fourth component labelled as “Others”; the contents of this component were eventually merged within the three components.

The data within the subset were reviewed repeatedly and continually coded. Every time an interview was coded or reviewed, key quotations and insights were

highlighted. Interpretations generated by the analyst were noted as memos on paper. New categories emerged and recoding of the data was carried to the point of saturation (Lincoln & Guba, 1985; Miles & Huberman, 1994; Strauss, 1987). A total of 19 categories emerged. The coding scheme was then finalized and a code book was developed to ensure “consistent application of final coding category” (Knafl & Webster, 1988, p. 201). As recommended by Miles and Huberman (1994), the codes were then defined to maintain consistency during coding of the interviews, and for easy identification. From this, a hierarchal alpha numerical coding scheme was developed.

### **Coding of Data**

All data were subsequently coded by indicating the appropriate code number in the margin of the interview transcript. Responses of the key stakeholders did not typically fall into the three components of planning, production, and management during the interview, but the responses were arranged under these components during coding. Some categories were difficult to “exactly fit” into one of the components as they had dimensions in all three. In such instances, the variable was classified under the component where it emerged as a major dimension and reference was made in other components. For example, “nursing positions” was the most difficult category to code because it overlapped with several other categories such as shortage of nurses, quality of care, current nursing human resource situation, quality of education, faculty-student ratio, and educational capacity of students. Furthermore, this category influenced all the three components of planning, production, and management. It was decided that from the data,

“nursing positions” emerged as the major category in planning, with reference to this category made under components of production and management. The components of management and planning were discussed concurrently by the respondents during the interviews and this was revealed by the pattern of coding.

All data were considered meaningful as the intent was to capture the perceptions of the respondents. Emphasis was not on counting the number of times a code was assigned, but on the content of the interview.

### **Data Analysis**

As recommended by Miles and Huberman (1994), data analysis was conducted concurrently with data collection. Data analysis is the process of “bringing order, structure, and meaning to the mass of collected data” (Marshall & Rossman, 1995, p. 112). Data analysis in qualitative research is a creative process; its procedures have been criticized for there “remains a fundamental ambiguity that is inherent in the creativity process” (Munhall & Boyd, 1993, p. 443). Furthermore, the researcher-as-instrument in qualitative studies (Eisner, 1991; Fraenkel & Wallen, 1993; Merriam, 1988) not only influences what to study and how it is studied, but also in making sense of the data during data analysis can influence interpretation of results. The need for openness to what was said by the key stakeholders and witnessed in the field in this study was identified by the researcher. The biases and influences of the researcher’s experience in the field were acknowledged and have been addressed in the limitations of the study in this chapter.

As described by Creswell (1994), data analysis occurred in three stages: describing, analysing, and interpreting data.

### **Description**

Matrices were developed to describe the data. Matrices are a cross tab format with a set of variables forming a row and another set forming a column. The matrices arranged the data under the human resource development components of planning, production and management, and displayed the categories across levels and affiliations. The matrices allowed for patterns and relationships between data to be revealed (Tesch, 1990). The emerging categories were described narratively with examples from raw data. The description of categories helped to explore relationships and to compare responses for the differences and similarities in the perceptions of the key stakeholders.

### **Analysing**

For the next level of analysis, data were synthesized in each category under components. Similarities and differences in perceptions were noted. Emerging patterns were noted amongst categories and issues within each component were identified. A pattern is defined as “something consistently happening in a specific way” (Miles & Huberman, 1994, p. 253). The issues facilitated a more integrated understanding of data. These issues were then consolidated into themes.

Themes are meaningful units of analysis (Miles & Huberman, 1994). The emerging themes were then validated by three researchers who examined the categories to see if they agreed on the issues and themes that were identified. To reiterate, the process

of data description and analysis proceeded from the presentation of coded data in matrices, through the clustering of data with similar characteristics into categories, to the identification of issues, and the consolidation of these issues into themes. These themes then formed the basis of the interpretation stage.

### **Interpreting Data**

There is considerable debate over what constitutes good interpretation in qualitative research (Hammersley, 1992). Norman (1994) argues that interpretation is an artful political process and there is no single interpretive truth. Patton (1990) advocates that interpretation of data involves going beyond description of data. Some of the functions of interpretation include attaching meaning, offering explanations, drawing conclusions, extrapolating lessons, and building linkages. Patton further advises that emphasis is on understanding and extrapolating, rather than on causal determination, prediction, and generalization.

In this research, interpretation occurred through the discussion of the themes (presented in Chapter 6). Themes were explained in relation to NHRD situations in the Sindh province. Literature was reviewed to bring meaning to the themes, and to build linkages between this research and the theory in relation to HHRD.

### **Limitations**

The limitations identified for this study were:

1. Unstable political conditions prevented access to some institutions for collection of data and limited access to some government leaders.
2. Some data may have been lost when responses were written in English from those interviews conducted in Urdu and not audio-taped, as well as from transcribing tapes from Urdu to English.
3. Potential for the researcher to introduce bias by providing cues about desirable responses during face-to-face interviews was present (Stewart & Shamdasani, 1990). Researcher bias was addressed through pretesting the interview guide. Special attention was given to the wording of questions and facilitation technique to convey a sense of neutrality.
4. There could also be a potential risk for the researcher to introduce bias in analysis and interpreting results because of her own knowledge and experience. The researcher was conscious of this and made an effort not to share perceptions of the phenomenon, nor impose them on the analysis, thereby concentrating on what the respondents have answered to in the interviews. As recommended by Willms and Johnson (1993), the researcher made an effort to bracket biases and assumptions in order not to influence the interpretation of findings and field events. Having non-nurses analyse a selected number of interviews also added rigour to the process.

## **Generalizability**

One issue frequently debated in qualitative research is the quality (trustworthiness) of conclusions (Miles & Huberman, 1994; Sandelowski, 1996). One standard used to discuss trustworthiness is generalizability. The traditional view of generalizability is considered to be one of external validity. In qualitative research, generalizability is thought of as transferability, fittingness, or replicability (Guba, 1981; Lincoln & Guba, 1981). Generalizability refers to the extent to which findings and conclusions of one study have any large import, whether they are transferable to other contexts. Firestone (1993) suggests that there are three levels of generalizability: (1) sample to populations (less helpful for qualitative studies); (2) analytic (theory connected); and (3) case-to-case transfer. Using Firestone's levels for this study, the generalizability could be regarded at the level of case-to-case transfer. According to Firestone, case-to-case transfer occurs when a person in one setting considers adopting a programme or idea from another. This requires the study to provide "a rich, detailed, thick description of the case" (p. 1) so that the reader can make an assessment of the transferability of the study conclusions to one's own situation.

To support case-to-case transfer, this study described the background features and the physical, social, economic, political, and cultural context under which the study was conducted. The research process from literature review to research questions, conceptual framework, and research methods was clearly represented. To explain the situation of NHRD, provide structure to the findings, and guide data collection and analysis, a

conceptual framework was adapted. Data collection and data analysis were presented, including the coding process, creation of categories, identification of issues, and generation of themes. This facilitates the reader in determining the fit between this research and another situation. These strategies enable the reader to follow the decision trail and to determine transferability. The findings are presented with narratives which allow a person to determine the broader use of the study conclusions. The emergent themes assist in enriching the study conclusions.



## **CHAPTER 5**

### **FINDINGS**

This chapter presents the perceptions of key stakeholders regarding the nursing human resource development (NHRD) situation in the Province of Sindh, Pakistan. A brief demographic profile of the key stakeholders is provided. The presentation of findings is organized in relation to the two research questions that directed the study: (1a) What are the perceptions of key decision makers regarding planning, production, and management of NHRD?; (b) What differences and similarities exist, if any, between decision makers at various levels and of different affiliations; and (2) What are the issues identified regarding the current NHRD situation in relation to specific aspects of planning, production, and management of NHRD as perceived by the stakeholders?

The perceptions of key stakeholders are clustered under the three components of NHRD: human resource planning; human resource production; and human resource management. Categories within each component are presented with exemplars to illustrate the findings. Categories are defined as a group of data similar in characteristics that reflect a dimension of a component. The perspectives of the key stakeholders are compared for similarities and differences between the levels and by affiliations. Issues that emerged through examination of the categories are presented. In addition, the

similarities and differences of the key stakeholders' perceptions by themes and affiliation are presented. The chapter concludes with identification of major themes which emerged from consolidation of the issues.

### **Demographic Profile of Key Stakeholders**

Out of 34 key stakeholders, 15 (44.1%) were government officials and 19 (55.9%) were nursing personnel. Almost all government officials were male (93.3%, n = 14) and the majority of nursing personnel were female (89.5%, n = 17). All the government officials were married and 17 (89.5%) of the nursing personnel were married. Age distribution (Table 5.1) ranged from 30 years to 70 years for nursing personnel and 40 years to 70 years for the government officials. Work experience (Table 5.2) ranged from 15 years to 40 years for nursing personnel and 17 years to 37 years for the government officials. Respondents in both the groups had held a minimum of two positions and maximum of eight in the public sector prior to their present position.

**Table 5.1**

#### **Age Distribution of Key Stakeholders**

Years	Government Official		Nursing Personnel		Total	
	n	%	n	%	n	%
30-40	0	0	2	5.9	2	5.9
41-50	7	20.6	10	29.4	17	50.0
51-60	6	17.6	5	14.7	11	32.3
61-70	2	5.9	2	5.9	4	11.8
<b>Total</b>	<b>15</b>	<b>44.1</b>	<b>19</b>	<b>55.9</b>	<b>34</b>	<b>100.0</b>

Table 5.2

**Work Experience of Key Stakeholders**

Years	Government Official		Nursing Personnel		Total	
	n	%	n	%	n	%
≤ 20	5	14.7	6	17.6	11	32.3
21-25	4	11.8	5	14.7	9	26.5
26-30	2	5.9	2	5.9	4	11.8
31-35	3	8.8	4	11.8	7	20.6
36-40	1	2.9	2	5.9	3	8.8
<b>Total</b>	<b>15</b>	<b>44.1</b>	<b>19</b>	<b>55.9</b>	<b>34</b>	<b>100.0</b>

Educational qualifications varied across affiliations; all the government officials had a minimum of an undergraduate degree (equivalent to grade 12 high school education plus 3-4 years of university education). The physicians had a minimum of MBBS (equivalent to grade 12 high school education plus 5 years of professional education in a medical college leading to an undergraduate degree) and 3 (20%) attained higher university education, 2 had master's degrees, and 1 had a PhD. Government official respondents included 10 (66.6%) physicians and 5 (33.3%) non-health personnel. All the nurse respondents had a minimum General Nursing (equivalent to grade 10 secondary education plus 3 years of professional education) and Midwifery (1 year professional education) diplomas; 17 nursing personnel (89.5%) had an additional 2 years post-basic professional education in nursing administration and teaching. Out of these 17 nursing

personnel, 6 (35.3%) also had an undergraduate baccalaureate degree and 2 (11.8%) attained higher university master's degrees (in non-nursing fields). Respondents from both groups, four government officials (26.6%) and six nursing personnel (31.5%), had been abroad for short-term courses. Data on higher education of two physicians are missing as they declined to give this information.

### **Components of Nursing Human Resource Development**

When discussing the components of nursing human resource planning, production, and management, the key stakeholders addressed not only their perception of the actual situation and contributing factors, but what they felt should be done to rectify the present situation. The data were categorized and the categories were then classified within each of the three components of planning, production, and management. The majority of the categories were associated with the probes used during the interview while some emerged from the data. Under planning, the categories, policy formulation, current planning, and human resource development plan, were associated with the variable health policies (refer to Table 4.2). Under production, the categories, curriculum and applicant pool, were associated with the probe, role of education in preparing nursing personnel. Under management, two categories, shortage of nurses and distribution of nurses, emerged from the data. These variables were not used as probes, but are included in Hal's (1995) guidelines (see Table 3.2). Three categories, status of education, student stipend, and quality of care, emerged from the data. Categories within each component

are presented in Table 5.3. Perceptions are presented according to the components of NHRD. Selected statements from the stakeholders are presented for illustrative purposes.

**Table 5.3**

**Categories of Perceptions Within Each Component**

Components	Categories
Planning	*Policy formulation
	*Current planning
	*Human resource development plan
	*Involvement in planning
	*Current nursing human resources
	+Nursing positions
	+Level/distribution
Production	*Status of education
	*Educational capacity
	+Curriculum
	*Faculty-student ratio
	+Applicant pool
	*Student stipend
Management	*Shortage of nurses
	*Working conditions
	*Job satisfaction
	*Salary and benefits
	*Quality of care
	*Distribution of nurses

\*Probes from conceptual framework.

+Used as probes where necessary.

\*Emerged from data.

### **Human Resource Planning**

As indicated in Table 5.3, seven categories associated with human resource planning emerged through the coding process. The categories were: policy formulation; current planning; human resource development plan; involvement in planning; current nursing human resources; level/distribution of nursing personnel; and nursing positions. Five categories (policy formulation, current planning, human resource development plan, involvement in planning, and current nursing human resources) were associated with probes. Two categories (level/distribution and nursing positions) were associated with probes used only as necessary (Hall, 1995). The findings in each of these categories are presented. Nursing personnel's perceptions are presented by level followed by those of government officials by level.

#### **Policy Formulation**

The category of policy formulation contained statements relating to the perceptions of existence of policies, formulation of policies, and factors influencing policy implementation.

*Nursing Personnel:* Out of 19 nurse respondents, 12 (63.2%) reported that they were aware of neither health policies nor formulation of the five year plan (FYP). All the nursing personnel at the federal level and some at the provincial level had an awareness of the process by which federal policies were formulated. It was their understanding that FYPs contained the health policies, including policies relating to nursing human

resources. They stated that policies were not readily accessible to health care professionals. For example:

So much time and money is spent on these FYPs—bound in books and then kept on shelves—there is no implementation (20FNP).

People of the country are not even aware of these FYPs. We as health care professionals do not have access to these copies. We have to search for these, as they are not easily available in libraries or health care departments, and in the offices of institutions' heads. We have to photocopy relevant pages even if we do happen to lay our fingers on these, which I understand is considered illegal (20FNP).

Health policies are made in FYPs, but do not get implemented at the provincial level because the government does not give that much importance to the plan. The doctors prepare the plan—medical superintendents, directors, and additional secretaries—and then send the plan to me for my comments for nursing matters. Actually FYP is initiated at the provincial level. All the four provinces' plans are collected at the federal level and the meeting is held at the federal level with provincial Secretaries of Health. Then the plans are taken to the Finance Division and Establishment Division where further work takes place and then they are sent to the government at high level for approval (21PNP).

A nursing leader at the provincial level was the only respondent who expressed the opinion that health policies could be implemented if there were external influences such as donor agencies to provide resources, support, and follow up. For example:

FYPs contain policies re education of medical students, nursing, and paramedics. FYP provides the focus for example in 7th FYP. The focus was on nursing education; that is, nursing student's intake should be doubled. According to this plan Sindh increased numbers of schools of nursing. The work had already started with Asian

Development Bank who was working to improve the nursing education in the Sindh. Then the Bank accelerated work and completed six schools of nursing (SONs) in last 7 years. This resulted in the total strength of students in SONs becoming double. It was 600 now it has become nearly 1,200 (21PNP).

Nursing respondents at the institutional level stated that they had not been involved in the formulation of the policies and were not aware of the process.

*Government Officials:* Some government officials at the federal, as well as at the provincial level, were not clear regarding the existence of health policies in the country. Although existing policy was usually defined in relation to the FYPs, there was a lack of clarity among the respondents with respect to the FYPs. Some regarded FYPs as health policies, while others considered them to be merely guidelines for health planning. For example:

We do not have health policies in Pakistan. We are working by plans...there is absence of policies (2FGO).

Regarding health policies I am waiting for the last 35 years to receive proper health policies (10PGO).

Some officials at the federal level perceived themselves to be knowledgeable regarding the formulation of policies. They stated that they were involved in planning at the federal level.

The work in planning FYPs begins at least a year ahead in all sectors, including health and several working groups of experts are formed to prepare working papers and submit a brief report to Chief of Planning Division which is incorporated after further deliberation in the FYP. The



final approval is given by the National Economic Council, chaired by the Prime Minister; the Chief Ministers and Finance Ministers of all provinces are members of the Council (2FGO).

At the provincial level, the officials explained that their involvement was limited to being asked sometimes for clarification or to attend meetings during formulation of FYPs. Similar to nursing personnel, none of the officials at the institutional level had been involved in the formulation of FYPs; one government official stated that he was not aware of the process of policy formulation. However, they stated that their involvement was at the implementation level and not at the planning level.

There was an expectation on the part of the respondents that FYPs should be implemented as time and effort had been put into the preparation of these plans, but it was generally perceived that the FYPs were not implemented.

There were two types of factors influencing policy formulation: those that impeded implementation and those that facilitated implementation. The responses by level and affiliation are presented in Tables 5.4 and Table 5.5.

***Impeding factors.*** Table 5.4 summarizes important factors that impede implementation. Three factors identified across all levels and both affiliations were: a lack of a proper plan, lack of resources, and political instability and political pressures.

Table 5.4

**Factors That Impede Implementation of FYPs Regarding NHRD**

Impeding Factors	Nursing Personnel			Government Officials		
	Federal	Provincial	Local	Federal	Provincial	Local
Lack of proper plans, e.g., unrealistic plans	▲	▲	▲	▲	▲	▲
Lack of resources: expertise, financial	▲	▲	▲	▲	▲	▲
Political instability and political pressures	▲	▲	▲	▲	▲	▲
Lack of involvement at grassroots level	▲	▲	▲		▲	▲
Shortage of nurses due to inadequate positions	▲	▲		▲		▲
Lack of interest in nursing issues	▲		▲		▲	▲
Health is not country's priority	▲		▲		▲	▲
Policies re nurses made by non-nurses	▲	▲	▲		▲	
FYPs not accessible to health care providers	▲	▲	▲			▲
Lack of follow up	▲	▲		▲		
General apathy among people				▲	▲	
Deteriorating conditions of society				▲	▲	

The symbol ▲ represents the presence of the response by one or more respondents.

Table 5.5

**Factors That Facilitate Implementation of FYPs**

Facilitating Factors	Nursing Personnel			Government Officials		
	Federal	Provincial	Local	Federal	Provincial	Local
Empowerment of nurses	▲	▲	▲	▲	▲	▲
Clear planning and implementation process, familiarize all with process	▲	▲	▲	▲	▲	▲
Political stability and political will needed	▲	▲	▲	▲		▲
Nursing leaders' involvement in planning and implementation	▲	▲	▲	▲		
Enhance knowledge and skills in HHRD	▲	▲		▲	▲	
Follow-up activities—monitoring evaluation, accountability	▲	▲		▲	▲	
Private public relationship	▲	▲		▲	▲	
Proper utilization of available resources, e.g., human, financial	▲	▲		▲	▲	
Need involvement of community and grassroots people in planning		▲		▲	▲	

The symbol ▲ represents the presence of the response by one or more respondents.

The perception that a proper plan was lacking was reflected in statements of unrealistic and inappropriate plans. For example:

Plans are based on incorrect budget assumptions regarding finance, e.g., thus making the plans inappropriate and the targets listed in the FYPs were not achievable. FYPs are not prepared on factual data as that is not available in the country. Our country is now in economic crises. This was not expected and had not been taken into account, when plans were made 4 years back (3FGO).

The lack of resources was described mostly in terms of financial aspects, human resources (experts in HHRD), and infrastructure aspects such as lack of programmes to implement FYPs. Many comments were made about political pressures and political influences on decision making of all aspects of planning in general, but greater emphasis was given to these influences on decisions pertaining to health human resources planning.

Although the nursing personnel perceived that FYPs were not accessible to the public and health care providers, only the government officials at the local level mentioned this as a factor. Conversely, only government officials at both the federal and provincial levels took a wider societal view and related their perceptions of the general apathy among people and the deteriorating conditions of the society as factors impeding implementation.

***Facilitating factors.*** Nine factors were identified by the stakeholders as facilitating implementation (Table 5.5). Two factors identified across all levels and both affiliations that would facilitate implementation were: empowerment of nurses and a clear planning and implementation process with which everyone should be familiar. A third

factor identified across all levels and affiliations, with the exception of the government officials at the provincial level, was the need for political stability and political will for implementation. A fourth factor identified primarily by the nursing personnel was the need for involvement of nursing personnel at every level of planning and implementation. The explanations given for including nurses at all levels of the planning process included: understanding and pursuing issues pertinent to the delivery of nursing care, knowledge of nursing standards and patient-related outcomes, and maintaining balance between production and utilization. As indicated in Table 5.5, four factors were identified by government and nurse respondents at the federal and provincial levels, but not mentioned by respondents at the local level. These were: enhanced knowledge and skills in HHRD; follow-up activities—monitoring, evaluation, and accountability; private-public relationship; and proper utilization of resources. One factor, need for involvement of community and grassroots people in planning, was identified only by nursing personnel at the provincial level and government officials at the federal and provincial levels. Facilitating factors exclusive to levels or affiliations were not found. Two groups of respondents, the government officials at the federal level and nursing personnel at the provincial level, identified all the factors listed in Table 5.5. Minimum numbers of potential facilitating factors were identified by both affiliations at the local level.

### **Current Planning**

This category includes information on the status of overall health planning in the country. The respondents stated that health planning in the country is not carried out to the fullest extent, is often not based on factual data, and is hierarchical in nature.

*Nursing Personnel:* At the federal level, the opinion was expressed that the staffing of hospitals is based on past and not on current requirements.

The existing human resource is derived from the time when the institutions were established. At time of starting the institution the staffing was usually determined as to type and category of staff, number, qualification, experience, job description and the job assignment, which have never been revised nor changed. Therefore staffing in the existing institutions is not according to the current requirements (16FNP).

Respondents at the provincial level stressed that pressure groups of medical personnel and paramedical personnel had an influential role in planning and resource allocation. For example:

Presently everything is need based. If needed by the politicians then it is done, for example, a district school of nursing opened to get nursing personnel because they (doctors) wanted to open hospitals, but nurses were not available...there were no plans for faculty positions, the school's operational budget; for recurrent costs and non-development costs (23PNP).

The stakeholders at the local level gave planning a time dimension and expressed the view that any planning is done with a short-term view and that there was neither medium-term nor long-term planning.

We are only concerned with immediate requirement and do not have any short-term, mid-term, long-term planning. It is very much needed. We should have it as we are entering the 21st century (33LNP).

*Government Officials:* The respondents at both the federal and provincial levels held similar perceptions regarding difficulties in the process of planning. They identified a gap between the planning and implementation of policies. Some respondents alluded to finance having a strong influence on planning and stressed that a lack of information existed with respect to all cadres of health professionals and at all levels. The key stakeholders felt that planning was “fragmented as there did not seem to be any coordination between institutions that are responsible for production of nurses and planners...lack of coordination between budget planning and resource allocation” (10PGO). Political instability was also viewed as a primary deterrent for planning of human resources.

The planning is for all sectors in the government and the problems are not only in the health sector. It happens in all sectors. There is always planning-implementation gap. At the beginning of planning cycle the Chief tries to find out budget allocations for health, that is, health sector's share. He will be told the total plan outlays and amount but those assumptions generally go wrong. You see there is ban on recruitment, but many people have been over recruited. The talks of retrenchment having a surplus pool, sending people home are all talk with very little action (2FGO).

Presently our planning is on ‘ad hocism’. It is a crude planning process. Needs assessment is not done. The planning should depend on data and disease patterns. Some data on disease patterns is available but manpower data is not available (4FGO).

Planning is done at provincial level and taken up at federal level where policies are formed and given to provinces for implementation. Provinces cannot make structural changes to the policies (20FGO).

You see planning is defective in Pakistan, as we increase hospitals we should also plan at the same time for how many nurses, male and female doctors we require. We do not do that. The present situation is based on day-to-day requirement (11PGO).

We have many reports in the country on HHRD stacked somewhere, but reports in this country are never acted upon. Several funding agencies such as Asian Development Bank and Canadian International Development Agencies have worked on HHRD. Unless we have political stability we cannot turn reports into plans and plans into reality; everything remains on paper only (3FGO).

A government official at the local level advocated a “bottom up approach” to planning.

There has been haphazard planning not only have they not planned human resource but they have not planned the building also... Planning should take place at lower level and input should be taken from grassroots level people regarding their problems and needs. They should also be encouraged to give solutions to their problems. Planning should be done at district level rather than in Islamabad (15LGO).

Other officials at this level emphasized the role that nursing leaders and the nursing regulatory body should play in planning; at the same time they indicated that nursing resources have not been given priority during health planning.



### **Human Resource Development Plan**

This category, human resource development plan, included perceptions related to a formal plan for HHRD such as current supply, projected requirement, education of health care professionals, and working conditions in the country. When asked whether there was a comprehensive (including all health cadres) national health manpower plan in the country, all the respondents replied in the negative; all perceived that there was a need for such a plan at the national, as well as at the provincial level.

At all levels and across affiliations the respondents focussed on the negative outcomes of not having a comprehensive HHRD plan. Perceived consequences of not having a human resource development plan were discussed at length. The following exemplars illustrate these perceptions:

There is no human resource plan to indicate how many nurses or how many doctors are needed. The planning for staff [nurses] is only done when new wards are established... and old wards that are existing have minimum nurses (19FNP).

I don't think there is any structured plan for manpower development in Pakistan. There is lack of planning for doctors and nurses, therefore, we have a shortage of nurses and surplus of doctors (14LGO).

We should have a plan, because things don't happen according to discipline, the admission to schools of nursing do not depend on merit, but are mostly based on political recommendations (34LNP).

Because of lack of a plan, junior people are getting chances to do higher education or post-graduate courses, but once they come back they don't get high positions, while some of us who don't have the right connections, do not get

chance to avail these opportunities of higher education (26LNP).

*Nursing Personnel:* Respondents at the federal level perceived that, although the Pakistan Nursing Council had recommended a nurse to patient ratio, this recommendation was not implemented. An HHRD plan was identified as being required for the formulation of health policies. Nurse respondents at the provincial level perceived that nursing, in comparison with other health professionals, was the most neglected; there was no proper planning for nursing. At the local level, nursing respondents were more concerned with the institutional consequences of the lack of planning and cited perceptions of inappropriate utilization of nursing personnel and improper practices as negative outcomes.

*Government Officials:* Officials at the federal and provincial levels were specific in what they perceived was lacking in health care planning. For example:

We do not have a health manpower plan in the country which includes current supply, future requirements, competency profile describing skills according to job, types of manpower with what resources, where should they be appointed, their distribution, output, and production planning, and we need consistency (3FGO).

At the provincial level, officials expressed the view that, although a structure for health human resource planning existed, it was not documented and such a plan was in a developmental stage. At the local level, government officials commented on a perceived imbalance in numbers among various cadres of health professionals.

### **Involvement in Planning**

Involvement of key stakeholders in health human resource planning was the focus of this category. The perceptions differed across levels and affiliations.

*Nursing Personnel:* At the federal level, the respondents expressed the view that even when input is sought in planning and given by key stakeholders, that input does not relate to outcomes, particularly if those stakeholders, such as nursing personnel, are not part of the entire process. The nursing personnel thought that they are under-represented in the planning process and their views are not incorporated. The following excerpt illustrates the perceptions of what happens when key stakeholders have minimal input into the process:

No nurse is in higher position in planning or in policy making. If we had a nurse in planning then she would be able to plan posts according to the nurse requirements. Nobody has planned what are the real requirements of nurses. I have participated in the nursing human resources in 1988-89 when the planning commission had invited senior nurses from PNC, PNF [Pakistan Nursing Federation] and others to participate. We had calculated and planned the requirement for nurses; and number of sanctioned posts needed, but after that nothing happened. They took into account our input and incorporated it into planning. It was also to be included into Annual Development Plan but then the policy makers are not ours so it got lost.... I don't really know where this plan got lost because it did not come into final plans. You see after our meetings the plan was discussed at meetings with Secretaries of Health of the provinces. I don't know what happened during these meetings but the plan did not come into practice. You know at that time all health secretaries were doctors (18FNP).

Nurses are not involved at committees making decisions and policies. Sometimes only one nurse may represent all the nurses of the country and she is insufficient to justify convincingly all nurses' issues and demands, thus at the federal level where planning and decisions take place nurses should be represented adequately (20FNP).

Nursing leaders at the federal level perceived one of the key factors for noninvolvement of nurses in the planning process to be lack of knowledge among nursing leaders regarding HHRD. For example: “even the Pakistan Nursing Council does not have enough information or guidelines on NHRD in Pakistan as they lack expertise in this area” (18FNP).

The perceived subservient role of nursing was most obvious in a statement by nurse respondent personnel at the provincial level “we receive orders from the Secretary of Health that we have to obey” (22PNP).

Planning for nursing human resources at the local level was described as the responsibility of the Medical Superintendents (physician), who submit the annual requirements of health personnel and equipment in the form of a plan called “Scheduled New Expenditure” (SNE) to the provincial Department of Health. Only one of the nurse respondents at the local level reported participating in preparation of the SNE. She indicated that she is sometimes asked to provide input regarding the number of nursing positions needed in the institution. Frequent changes of key officials and low value put on nursing input were cited as reasons by the nursing respondents for the lack of input. The following exemplar illustrates this perception.

I have not participated in any planning process for nurses. I am not called at any institutional, district or provincial level meetings to discuss or justify the requirements. Here planning is done by officers themselves; they do not take advice, and especially not from nurses. They don't think that we are competent. One Secretary may understand our situation and is willing to fight for our case, but then he is transferred overnight. Recently three Secretaries of Health have changed. Political instability effects creation of posts and many issues of nurses. Even promotions of nurses have not taken place since last few years because of these rapid transfers of Secretaries of Health.

Nurse respondents at the local level saw themselves as having no input even in planning decisions that have an immediate impact on their lives. For example, the faculty of one school of nursing reported that they had no involvement in the admission and selection process of students; that up to a year ago, those decisions were made by the Medical Superintendents of the hospital in which the school was situated. As of 1997, the process has been centralized at the Office of the Director-General Nursing in the province. The nursing personnel at the local level mentioned that they did have input in planning of supplies and equipment, but not with nursing human resources.

*Government Officials:* Respondents at the federal level stated that they had involvement in health planning. The officials at provincial and local levels expressed their noninvolvement in the planning process.

I have not participated in formulation of health policies but have been involved in planning (8PGO).

I have never participated at planning and development level nor at federal level in planning for NHR, my involvement has been in preparation of SNEs (9PGO).

I have taken up this post very recently, less than a month. I have yet not been involved with any planning of nursing human resources nor in formulation of health policies. Health policies come from federal level (11PGO).

I have not been involved in planning for nursing human resource. I am not aware of process of health policies (13LGO).

These findings illustrate that those responsible for implementing decisions regarding NHRD perceive themselves as not being involved in making those decisions, and that there is a separation between the process of planning and implementation.

### **Current Nursing Human Resources**

Statements clustered within this category related to the dimensions of supply and requirement; inadequate supply and utilization of nurses; and image of nursing as projected by society and politicians. There was convergence of perceptions among all the respondents in relation to the current nursing human resource situation. The respondents identified an inadequate supply of nursing personnel in relation to the requirement for nurses.

*Nursing Personnel:* Respondents at the federal level emphasized the inadequate numbers and provided numeric information to support their perceptions. For example:

There are about 10,000 to 12,000 practising nurses in the country although the official figure, which represents nurses registered with Pakistan Nursing Council, is 23,000. This figure includes nurses who have registered but are not working because of several reasons such as they may not be allowed to work by parents or in-laws because of socio-

cultural reasons; they have retired; or working abroad; or lack of motivation to work as nurse (16FNP).

Nursing personnel at the federal level attributed the current situation to decisions made on needs of the past and have not been revised to reflect the current demand.

A few respondents at the federal level identified that the current situation may be a reflection of a negative image of nursing held by society, as well as politicians, and a lack of support for nursing. For example:

A low image of nursing is prevalent in Sindh, which is mostly due to the attitudes of the public towards nursing profession specifically and due to the attitudes of men towards women generally. Nurses being women are not respected by Sindhi males nor are they given the status they deserve. The image of a nurse in any male's mind is that if a nurse has stepped out of home, her link with the family is broken and she will be without any support and protection and thus could be easily manipulated. Under such circumstances she does not get status and support from her officers who are mostly men and from public (18FNP).

Those respondents also cited practices within nursing that they perceived as contributing to a lack of political will to create additional nursing positions, for example, "government has not felt the need for nurses as students have always provided care and the work has not stopped" (18FNP). Others perceived politicians, policy makers, and decision makers as not giving any attention to the nursing human resource problems.

The nursing personnel at the provincial level expressed a concern that the available supply of nurses was not being fully or appropriately utilized. They thought this was impacting on patient care, for example, "new graduates were not being hired because

there were no vacant posts for them.... Nurses on wards were performing non-nursing tasks and not providing adequate patient care.”

Nobody has planned supply and demand requirements. For example, in 1993 in our hospital there were 210 nurses, 40 head nurses, and 225 students for over 1,200 bed strength. Considering ICU and Operating Room areas, we need 500 staff nurses but we don't have because of financial constraints and budget problems. On the other hand, we have ratio of 1 nurse to 18 doctors and this ratio will remain till such time we do not increase the production of nurses and PNC will have to do something on this issue (24PNP).

At the local level, lack of nursing positions resulted in a shortage of nursing personnel on the hospital wards. The respondents reported that students were being used to provide the greater portion of nursing care. They perceived this practise to be compromising the quality of care and safety of patients as the students were neither supervised nor adequately prepared for the level of practice.

Unlike the majority of the respondents, one nurse respondent at the provincial level expressed the view that the current supply of nurses had increased in comparison to the previous decade, admission to the schools of nursing had improved, and there was an adequate supply of nurses in the province. However, she did not elaborate on this view.

*Government Officials:* The perceptions of government officials at the federal level were similar to that of nursing personnel at that level.

It is very clear that we are deficient in numbers where nurses are concerned, we are below our target for nurses, but we have oversupply of doctors. This has been indicated in the five year plans cycle since 1983. You see we have not been able to accommodate nurses into the health care



system...maybe because they do not lobby hard and they do not have political clout (3FGO).

Society looks down upon nurses, social values and social setup do not fit or accept nurses in the society; there is general societal deterioration in the people and in the institutions. There is no financial and political backing for nurses...There is need for projection of nurses' worth, exposure of nurses to politicians, increase nurses' numbers to 50,000 to increase their clout with the politicians. There is need to empower nurses by developing their skills in administration, and giving them management status in the government structure. Nurses need to be opportunistic, think globally, and use their power appropriately. For nursing to improve in this country there has to be political will, commitment, and awareness among society (3FGO).

In contrast, a government official at the provincial level discussed the requirement side of nursing resources in the hospitals and stated, "their [nursing personnel] demand on the wards is greater than that for doctors as they are the kingpins on the wards" (9PGO).

### **Level/Distribution**

This category contained information related to the actual and desired distribution of nurses across geographical areas and levels of care, that is, primary, secondary, and tertiary care—an indicator of both demand and supply. Convergence was noted in the perceptions of all respondents in this category. The supply was described as mainly in urban tertiary care hospitals with a few in secondary or primary care and in rural areas. The majority of the respondents across affiliations and levels thought there was a need for nurses at the primary level to provide health care to the communities, but that additional educational preparation of nurses would be needed.

Nurses are mostly distributed in the hospitals sectors but I think we must have nurses in the community also, because at present all the work in the community is done only by Lady Health Visitors and I strongly feel nurses should work in the communities. Until such time as nurses start working at primary level we will not be able to improve primary and community health care (17FNP).

If the nurses worked in the community they would be more aware of communities' problems...this will also increase nurses' self confidence and the trust of community in the nurses. Take Lady Health Visitors, they are recognized by community and respected but not nurses (32LNP).

We have geographic mismatch. Our nurses are concentrated in urban areas and in tertiary care centres, whereas our majority of population is in rural areas and we should be emphasizing on preventive care and primary health care. There is need for nurses to provide primary health care in community...in fact primary health care can be improved by nurses working in the community...There are no posts for community health nurses at present but they can be created (8PGO).

But they [nurses] will need basic knowledge and clinical experience re primary health care to work at that level. At present they are not prepared to work at this level (15LGO).

### **Nursing Positions**

This category contained information on existing nursing positions, including faculty and staff nurses in the public sector in the Province of Sindh. Regarding nursing positions the perceptions differed across levels but were similar across affiliations.

*Nursing Personnel:* Respondents at the federal level perceived inadequate nursing positions as being common to both education and service areas, and stated that they have not been able to change the situation.

Creation of positions for faculty and staff nurses has not kept up with the increase in admissions in schools of nursing and with increase in hospital beds. In addition, non-nursing personnel occupied numerous nursing posts. They reported that there were 9,000 sanctioned nursing positions for 80,000 beds in the public sector in the country, whereas the minimum requirement for nurses according to Pakistan Nursing Council criteria should be at least 24,000 (20FNP).

In one school there were 176 nursing posts at the time of starting the institution. The beds have now increased to 1,135 which is the official bed strength with 300 specialized beds but the nursing posts have not increased. I have approached Ministry of Health, Establishment Division and wherever I was guided but I could not get new nursing posts created (16FNP).

Nursing personnel and government officials at the provincial level had similar perspectives. They attributed inadequate nursing positions to financial constraints, low priority given to nursing, and lack of planning. They also viewed the number of positions as inadequate and not keeping pace with expansion of services and programmes. For example:

There are 1,100 sanctioned posts for nurses for 10,000 beds in Sindh province. There were 184 nursing positions occupied by non-nurses such as paramedical. According to PNC criteria minimum of 3,000 nursing positions must exist in the province. I know that for last 15 years there has hardly been any creation of new posts for staff nurses even in one of the largest hospitals in the province (21PNP).

The nurse respondents expressed the view that once nursing positions were occupied by non-nursing personnel, it was difficult to change the situation. For example, “due to political pressures it was difficult to retrieve nursing positions held by non-

nurses” (21PNP). They also thought that budget cuts impacted more on the supply of nursing personnel than on the supply of doctors and paramedical staff whose numbers were much larger. They attributed the situation to a lack of interest in nursing, non-representation of nurses in decision making forums and the influence of pressure groups.

There is no nurse in those meetings to justify the nursing positions. Also they (decision makers) don't seem to be interested in nursing (22PNP).

The nurse respondents at the provincial level repeated that in the majority of institutions, the requirements for nursing positions had not been reviewed since the time the institutions were established. Their perception was that new positions for nurses had not been created correspondingly with an increase in hospital beds and the current supply of nursing staff was insufficient to provide adequate nursing care to the patients.

Nursing leaders at the local level were institution oriented and most of them held no views on the issue of nursing positions in the province. The nursing respondents expressed the view that the number of nursing positions was inadequate. They also stated that the decisions relating to those positions, postings, and transfers were not made by them, but by influential external groups. For example:

In a ward of 50 patients we have two staff nurses and one head nurse in the morning shift with students, one staff nurse in afternoon with students and only one student on duty for 12 hours at night. Sanctioned posts must be increased in order to provide proper and quality nursing care...the number of patients have increased and demand for nursing care was increasing, but positions for nurses were not increasing due to financial constraints (34LNP).

Political pressure in posting and transfers of nurses... doctors dominate environment on the wards; everybody listens to them, there is no recognition of nurses in complementary role to doctors. They are most of the time seen in the subservient role (30LNP).

In the opinion of the nurse respondents at all levels, pressure groups such as physicians and paramedical staff have exercised control and influenced decisions and policies affecting nursing resources. These respondents also stated that there were very few nursing leaders in higher positions influencing policy.

*Government Officials:* Similar to nursing personnel at the federal level, government officials at that level viewed the issues of nursing positions from a national perspective. They emphasized the role and impact of pressure groups in affecting health planning, and reaffirmed the view that the issue of nursing positions should be addressed as part of the overall health planning process. These officials described their perception of a general breakdown in the decision-making process within the government hierarchy, and attributed that breakdown to political pressures resulting in decisions being made neither in accordance with the rules and regulations nor systems' requirements. Some officials at the local level supported this view.

Decisions are influenced by two major factors: political, who is in power and on feudal lords of the areas (13LGO).

As with nursing personnel at the local level, the government officials were institution oriented and most held no views on the issue of nursing positions in the province.

### **Summary of Human Resource Planning**

Human resource planning was discussed from a variety of perspectives; similarities and differences were associated with levels and affiliation. The government officials and nursing personnel at the federal level had the most involvement and a clearer understanding of the planning process. Respondents of both affiliations at the local level had minimum involvement in the process. Government officials addressed the planning issues from a broad societal view, whereas the nursing respondents' had a narrower view focussed on issues from a professional's viewpoint and the impact on the services provided.

Lack of awareness of health policies and the planning process, and noninvolvement in the planning process, were generally perceived across all levels except at the federal level. Some nurse respondents who had an awareness of existence of policies perceived that policies were not readily accessible. There was a lack of consensus about the FYPs; some regarded FYPs as health policies, whereas others considered them merely as guidelines for health planning. Although planning for the FYPs was seen to be a lengthy process with experts in working groups, the general perception was that implementation did not take place.

All the respondents perceived that the country lacked a comprehensive human resource development plan; that current health planning was flawed, fragmented, ad hoc, and centralized at the federal level. They identified the current nursing human resource situation as being unsatisfactory due to an inadequate supply of nurses in the province. The perception was that numbers were insufficient to meet the requirement for providing

adequate nursing care to the patients in hospitals. The existing supply of nurses was perceived as being under utilized. Perceptions were that new graduates were not being hired, nurses' time was utilized performing non-nursing tasks, and the unsupervised nursing students were providing the nursing care, which sometimes compromised quality of care and safety to patients. The use of students for service then contributed to the low importance given to creating nursing positions.

The lack of data on all health care professionals was viewed as a factor negatively affecting formulation of health policies and current health planning. Input by major stakeholders was advocated generally by respondents and felt to be essential for implementation of plans. One of the major concerns of both nursing personnel and the government officials was the dichotomy between planning, which was a federal responsibility and implementation, which was seen as the responsibility of the provincial Department of Health.

Respondents thought that sanctioned nursing positions were not created correspondingly with the increase in hospital beds. Perceived reasons for non-creation of sanctioned positions included: lack of finances, lack of realistic planning, noninvolvement of nursing leaders in planning and decision-making process, lack of knowledge relating to HHRD, and low priority given to nursing. The supply of nursing personnel was seen to be concentrated in tertiary care settings with few working in the community where they were seen as being needed as well. This situation was attributed to no positions being created for community health nurses in the province, and the lack of adequate preparation of nurses for community health.

### **Issues Related to Human Resource Planning**

When the seven categories relating to human resource planning were analysed for patterns, nine issues emerged. The issues were: (a) awareness of health policies; (b) politics of planning; (c) implementation of policies; (d) nursing input (e) supply in relation to requirements; (f) number of sanctioned posts; (g) utilization of nurses; (h) labour substitution; and (i) maldistribution of nursing personnel across levels of care and geographical areas.

### **Human Resource Production**

This component addresses the education of nursing human resources. A total of six categories emerged through the coding process: (a) status of education; (b) educational capacity/student seats; (c) curriculum; (d) faculty-student ratio; (e) applicant pool; and (f) student stipends. Two categories (educational capacity/student seats and faculty-student ratio) were associated with the probes arising from the use of Hall's (1993) framework. The categories status of education, curriculum, applicants, and stipend emerged from the data, although curriculum and applicant pool are variables identified by Hall (1995), but were not used as direct probes. Each of these categories is presented with exemplars from the data.

#### **Status of Education**

Respondents across all levels and affiliations perceived the status of education for nurses to be unsatisfactory and to be deteriorating.



*Nursing Personnel:* Respondents at the federal level addressed the education of nurses from a professional perspective but also related larger societal issues to a perceived decline in quality. For example:

Nurses' education is deteriorating. Some teachers are teaching from their notes, which are 10 years old in spite of changes in the curriculum. If the profession is to progress education of nurses' needs to be seen as priority...if you don't prepare a competent nurse how can you expect safe and quality care for your patients (19FNS).

Important factor is budget. School [of nursing] do not have budgets; how are they going to improve production of nurses? Curriculum is not being implemented because of lack of resource such as equipment, supply, and also lack of competent teachers. At present the quality of work is affected due to corruption in the society, including nurses; faculty and staff are not performing up to the expected standard. Staff nurses are coming late on duty and leaving early so the burden of work is on students; faculty are also not fulfilling their responsibilities of providing proper classroom and clinical teaching (18FNS).

Nursing personnel at the provincial level perceived that service needs of the institutions take priority over education needs of the students. Nursing training was described as being controlled and located in service institutions with no separate budget allocation. They compared the nurses' education to that of physicians and lady health visitors, who receive their education in institutions. These institutions are designated as educational institutions, and are qualified to operate with separate budgets. Problems in nursing education were seen as reflecting broader issues such as the impact on education of being located in and controlled by service institutions where service needs have

priority; and nursing being seen as vocational training and not as professional education.

Nursing education was viewed as task-oriented training. For example:

The nursing education does not make much difference to the nurses performance...emphasis has always been on quantity and not quality, students are required to man the hospitals and their education suffers. Doctors and professors think that education is not important or necessary. Only nurses' physical presence is necessary on the wards because they don't think nurses can provide intelligent care. Nurses are seen as doing only manual work and that they do not need resources (21PNP).

Nursing personnel at the provincial level also expressed the view that the provision of adequate numbers of competent teachers, adequate financial resources and equipment, and students not being used as service providers would be essential if the quality of education was to be improved.

It is apparent that students do not get time for their education. They do not attend the classes. They are always stressed and in fear that they have to go back on wards to relieve their staff nurses. Students say they cannot attend lectures from 1pm to 2pm because of our staff nurses. There is so much lack of discipline in the wards among staff. They come late and leave early thus the total load of work (nursing care) absolutely everything on the wards is dumped on the students. Our students are made to work hard on wards; they are not guided nor supervised on the wards. They are neither given time nor resources for their personal and professional growth (21PNP).

The main reason for poor quality is that nursing education is not given the status of education by the government but is considered as training and is placed under hospitals... schools of nursing have no budget and therefore cannot function effectively. At present some schools are functioning on contributions from the students, there is urgent need to separate nursing service and nursing

education so that students are not used as cheap labour. This will promote the need for nurses which may then lead to creation and increase in nurses posts (23PNP).

Nursing personnel at the local level were most concerned with the operational issues affecting the status of education. Their concerns were similar to those of the nurses at the provincial level in that they perceived the following factors as influencing quality: inadequate preparation and numbers of teachers, lack of adequate supplies and proper equipment, and the lack of a budget. However, they also identified the quality of students entering the programme as a factor influencing quality.

Generally the status of education is not good in government institutions as compared to private institutions because of several reasons such as admissions of students are not always on merit. There is sometimes political pressures to accept girls with low educational level; who have passed in grade E and are not able to cope; the teachers have to make extra effort for these students and yet they fail. And education quality suffers. Many times students are not able to apply what they learn in classrooms on the wards because of lack of facilities and equipment on the wards. Education does not entirely prepare nurses for their roles because of problems with the government, institutions, and the students themselves (25LNP).

*Government Officials:* Key stakeholders at the federal level placed nursing education within the broader context of education in the society in general.

There is general deterioration in education in the country. There is apathy from the general public to do anything about the deteriorating quality...knowledge and competence are important aspects of health human resource development, but these have not been taken into account for nurses. There has been lack of depth in nurses' education... nursing training was not tailored to national

needs and requirements. It still focuses on western models...our curriculum does not contain aspects of community nursing care (4FGO).

Although stating that they had no factual data, officials at the provincial level thought the quality of students, and quality of teachers, in general, impacts on quality of graduates. They perceived that public sector institutions were admitting students with low level performance and from low standard matriculate schools. They thought that the admission criteria for schools of nursing should change to higher educational qualifications in order to improve quality. One official thought that attracting applicants from higher social strata of society was an important way to enhance the image.

For nursing to improve girls from good families of high socioeconomic standing and from good reputable schools should join nursing (11PGO).

The officials at the local level expressed concern for the safety of patients which they saw as being compromised when students were given "responsibility for provision of services before they were adequately prepared; and, in emergency situations, sending them to critical areas for which they were not adequately prepared" (14LGO). Motivation of students was perceived as being adversely affected by the priority given to service and neglect of the educational needs of the students. They also expressed the opinion that the schools of nursing should have independent budgets to function effectively.

**Educational Capacity/Student Seats**

Educational capacity referred to the number of student seats available in schools of nursing for admission.

*Nursing Personnel:* The nurse respondents at all levels emphasized their perception that student seats should not be increased without a corresponding increase in sanctioned posts for teaching staff and for staff nurses in the service institutions. A nurse at the federal level reiterated this with factual data that illustrated an imbalance between production and utilization.

We need additional seats for students but with a simultaneous increase in sanction posts for staff nurses. Currently we have 87 schools of nursing with over 2,000 nurses graduating, but we have no posts for them. As we have saturated existing posts—unless we increase sanction posts for nurses we cannot increase student seats. To increase student seats there should be increase in teacher posts also, to maintain the ratio (19FNP).

The nurses at the federal level thought that the graduates of government institutions were not being hired as there were no positions available. Their view was that an increase in educational capacity would not address the shortage of nurses as the problem was in the lack of sanctioned positions for the graduates.

The preparation of teachers was addressed by nursing personnel at the provincial level. Adequately prepared teachers, as well as an increase in numbers, was seen as being required to accompany any increase in the number of student seats.

Since the last 5-6 years we have opened 4-5 new schools, thus total student seats have increased, almost doubled. We

do not need additional schools, but we need to increase student seats and faculty positions. Posts of principals need to be created and the SONs must have their own budgets. At present some schools are running on contributions from students...there is urgent need to improve the quantity and quality of teachers in all public sector institutions (21PGO).

The views of nursing personnel at the local level were similar to those at other levels. However, they also expressed the view that qualified teachers were available but were not being utilized appropriately. For example:

In Sindh we have many nurses who have done post-graduate and qualify as teachers but are working as bedside staff nurses. They should be made teachers and be sent to SONs to teach (30LNP).

*Government Officials:* Respondents at all levels had very little to say about the issue of educational capacity. The respondents at the federal level made no comments on this issue. The respondents at the provincial level perceived the need for additional teachers and other resources before increasing the student seats. Perceptions of officials at the local level were similar to the nurse respondents at this level, focussing on the availability and/or inappropriate utilization of teachers.

Students are increasing but posts for faculty are not available (14LGO).

There is no need to increase the student seats because there is lack of properly trained teachers in the schools of nursing. There are problems with the posting of teachers; we have teachers on our strength but they are working in another institutions. This practice should be stopped (15LGO).

### **Curriculum**

Statements within the category of curriculum referred to the course of studies in the general nursing programme. Marked differences were noted in responses between nursing personnel and the government officials.

*Nursing Personnel:* The curriculum was perceived by the nursing personnel at all levels, to be relevant to the needs of the country. The nurse respondents thought the curriculum had incorporated community health nursing courses in all 3 years and was better organized since its last revision in 1994; if implemented fully, it would prepare nurses to perform their roles adequately. All the nurse respondents at all levels were of the opinion that the curriculum was not being implemented fully and effectively. Nurse respondents at the federal level reasoned that the curriculum was not implemented as a result of inadequate resources.

Curriculum is relevant, but we have no facilities to implement curriculum, for example, for a community health nursing practicum they need to go to communities but they do not have transport facilities. They should be going on field trips, home visiting but they cannot because they do not have facilities. Curriculum implementation is affected because of lack of facilities. If we had necessary facilities, full staff, clinical instructor then we can implement the curriculum fully and graduates can be prepared to perform role expected of them (18FNP).

Nursing personnel at the provincial level reflected on the partial implementation of the curriculum and on perceived differences in implementation between private and public institutions. One nurse explained:

Observing SNEB results throughout the province, I can tell you that teaching in the government institutions is very poor. Results are very good of private institution. Teachers in government institutions are not up to the mark nor do they put extra effort or work hard. Theory does not relate with clinical experience, they learn theory but there is no help given to the students to help them integrating the two (22PNS).

If education is imparted properly, then it does prepare nurses for their role. You see revised curriculum has been introduced but not implemented in full. Bare minimum is taught to pass the examination but not enough to improve the quality of nursing care. We do not prepare nurses to meet the challenges of changing health care demands nor give competent intelligent care (23PNS).

The nursing personnel at the local level considered the most crucial issue to be the burden of service needs on students which prevented students from receiving a proper education. Other perceived reasons included: lack of facilities for clinical experience; lack of adequate and competent teaching staff in the classroom, as well as in clinical areas; and lack of learning resources and equipment in schools of nursing.

We cannot relate theory to practice. We teach theory in the classroom but the students cannot perform accordingly on the wards. We teach nursing care plans (NCP) but they cannot prepare NCP for patients on the wards because they are more required to update records of stock and equipment once they graduate. They cannot carry out the procedures taught in the classroom, because there are no equipment and supplies to do that [on the clinical area] (29LNP).

The teachers need to develop education and character and personality to socialize and develop students into the professional role (33LNS).



*Government Officials:* The officials at federal and provincial levels perceived the curriculum to be deficient and not relevant to the needs of the country. For example:

There is minimum importance given to community health nursing. Our curriculum is deficient; it needs critical analysis and the curriculum needs to be redesigned according to the needs of the country (4FGO).

Minimum importance was given to community health nursing...it [curriculum] reflects western practice and is difficult for nurses to practice (9PGO).

Unlike the majority of respondents, one of the government officials at the provincial level had a different opinion and thought that the curriculum was “perfect”, under the control of nurses and was being reviewed periodically by senior nurses. Government officials at the local level made no comments on curriculum.

### **Faculty-Student Ratio**

This category contained statements about the number of students per faculty in the schools of nursing in the province.

*Nursing Personnel:* All the nursing personnel at all levels perceived that there was variation in faculty-student ratios across institutions throughout the province. Nurse respondents at the federal level emphasized the need for clinical teachers to supervise students in clinical areas in order to produce competent practitioners. At the same time they explained that there were no known posts for clinical teachers.

Previously we were saying 25 students:1 teacher, now we are saying there should be 2 faculty for 25 students and one of them should be clinical instructor. I feel we need more

clinical instructors; there should at least be 10-15 students per one clinical instructor. If we want competent nurses, clinical instructors must be given more emphasis (17FNP).

Teacher-student ratio in classroom and in clinical areas is not proper—no provision for teachers in clinical area. Faculty-student ratio is enough in some institution and not enough in some institution (18FNP).

Nurses at the local level thought that there was a need to increase the number of teachers. In their opinion, the shortage of faculty was affecting teacher's efficiency, as well as the quality of graduates.

The Pakistan Nursing Council criteria for faculty-student ratio is not adequate as subjects in the curriculum have increased, students have increased, but teachers' posts have not increased. There are also frequent transfers and biased postings of faculty... We have two posts for faculty for 40 students for all 4 years of training [3 years General Nursing, RN and 1 year Midwifery, RM] and for all nursing and non-nursing courses (30LNP).

Some institutions were seen as having an adequate student-teacher ratio while others, particularly in the interior areas, had inadequate ratios. Nurse teachers with the necessary academic qualifications were seen as being available in the service institutions but were not being utilized as teachers as there were no teaching posts available in the schools of nursing. Two nurses from an urban institution felt that the schools of nursing had an adequate faculty-student ratio, but lacked teachers with high level of competence and teaching/learning resources.

*Government Officials:* The government officials at all levels had no comment on faculty-student ratio other than to indicate that they had no knowledge of the situation.

**Applicant Pool**

This category contained statements relating to candidates who applied for admission to the schools of nursing in the province.

*Nursing Personnel:* The respondents at the federal level did not comment on the applicant pool. At the provincial level, some expressed the opinion that the number and qualifications of applicants had improved, and related that improvement to the introduction of a new policy of not accepting applicants who had their general education in other provinces. These respondents anticipated increases in the number of applicants from Sindh province and a decline of applicants from other provinces. They described admission as becoming competitive, and implied that competition would improve quality. Some respondents expressed the view that the poor quality of applicants was impacting negatively on the quality of education.

Quality of education also suffers because of poor quality of applicants; students are admitted based on political pressures and not merit, emphasis has been on quantity and not quality (23PNP).

Nursing personnel at the local level held similar perceptions to some of the nursing personnel at the provincial level. These respondents described a change in trends that they had observed. For example:

Because of cultural and societal constraints, the local people were not sending their daughters into nursing and they didn't like nursing. The trend is changing and local girls are joining nursing as their parents are beginning to appreciate the profession. Also in the past girls from Punjab used to fill nursing seats in all the provinces and mostly Christian girls were entering the profession, but now local Muslim girls are joining nursing. The present economic situation in the country is compelling more women to seek work outside their home for earning money (27LNP).

*Government Officials:* The respondents at the federal level placed applications to basic nursing programmes within the larger societal context. They perceived that cultural barriers and societal pressures have had a negative impact on nursing as a career choice and on the image of nursing, resulting in a limited applicant pool. They perceived that raising entrance criteria would make nursing a more attractive career choice.

Entrance requirement should be intermediate and not matric as matric girls are immature, lack English language skills, and intellectually are not ready [to become nurses]. We need well-educated girls to join nursing to enhance the profession... Intermediate girls then can be given degrees that will bring nurses at par with other professions. Equate with doctors and get grade 17 [officers' grade in the government system] as a beginning grade (2FGO).

The officials at the provincial level emphasized a need for active recruitment efforts to attract young women into the nursing profession as the applicant pool was limited "because of low female literacy in the country, particularly in the rural areas" (8PGO). Similar to nurse respondents at the provincial level, the government officials

emphasized the need to attract young women with higher educational preparation. For example:

If a nurse's educational background and IQ level is better then she will be able to perform better on the wards as she will understand the ward systems and routines and work better. The education prepares her but how she utilizes her knowledge is dependent on individual to some extent, her knowledge, and her interest. Some girls do 4 years nursing for the sake of it and finish 4 years but do not really take interest to learn maximum (9PGO).

These officials expressed the views that there was an association between recruitment into educational programmes and retention of graduates in the local area, for example, "recruitment should be from local communities to enhance retention of graduates" (11PGO).

Officials at the local level also perceived the need for more highly qualified applicants. They related quality of applicants to the quality of general education.

We are taking girls who have completed only 10 years of education, that is matriculates, and our minimum requirement is 45% of passing marks. We all know that our education system is not up to the standard and then with such a low expectation, how can the girls cope with the work in the hospitals, where mostly the work requires good grasp of English. The matric girls can rarely write anything in English. I think this is the biggest hindrance for the girls that have come from the villages or remote areas. In fact, some of these girls don't even know proper Urdu. It is very difficult for these girls to cope and obtain good nursing education (14LGO).

### **Student Stipend**

Statements regarding stipends were made by some of the nurses and government officials at federal and local levels, but not at the provincial level. Stipends are provided for students each year they are in a nursing programme.

*Nursing Personnel:* One nurse respondent at the federal level thought that discontinuing stipends other than for needy students would allow for expansion of capacity (capacity is limited by the number of stipends available), save the government monies, and encourage admission of only those applicants interested in nursing.

Similar views were expressed by a number of the nurse respondents at the local level. Those nurse respondents commented that stipends serve as the means of enticing applicants into nursing and encourage persons who are not interested in nursing to apply. They further explained that parents allow their daughters to join nursing because of the economic incentive provided by the stipends. One respondent thought that stipends encourage applicants from the lower low socioeconomic group to enter nursing and this reinforces society's perception that nurses come from a low socioeconomic strata.

*Government Official:* One respondent at the federal level perceived that stipends set nursing apart from other students and contribute towards the public's negative image of the profession. That is, the "society looks in a condescending way towards nurses" (2FGO). A government official at the local level had a conflicting view as he felt that stipends are of value but were inadequate and needed to be increased.

### **Summary of Human Resource Production**

The majority of the respondents across levels and affiliations perceived the status of education for nurses as unsatisfactory and deteriorating. There were differences in perception between the nursing personnel and the government officials in relation to the reasons for the existing status of education. The government officials viewed the deterioration in quality as part of the prevailing conditions in the society, whereas the nursing personnel focussed on specific issues such as number of faculty. The issue of quality was discussed in relation to the applicant pool, nursing students, and the graduates of nursing programmes. The perceptions among the respondents were similar regarding the need to improve the status of nursing education.

Cultural barriers and societal pressures were perceived as having an impact on limiting the applicant pool currently available. However, there was the perception that the local applicant pool was expanding as reflected in an increased number of local students entering nursing. The need to have the applicants for nursing at an educational level comparable to that of other professions was cited by both nursing personnel and government officials.

The curriculum was seen by the government officials to be deficient and not relevant to the needs of the country, whereas nursing personnel at all levels felt that the curriculum was better organized than the previous curriculum and relevant to the needs of the country. All nurse respondents had similar perceptions relating to implementation of the curriculum, that is, that it was not being implemented fully and effectively. Inability to integrate theory and practice was perceived as one of the major problems. Also, the

higher performance of graduate nurses from SONs in the private sector was attributed to the revised curriculum being implemented to a greater extent in that sector. Several reasons were expressed as to why the curriculum was not being implemented or being partially implemented in schools of nursing in the public sector. The major reason was the burden of service needs being placed on students that prevented students from receiving an appropriate education. The nurses at all levels thought that resources such as competent faculty, adequate facilities and equipment, and learning materials were needed in order to implement the curriculum fully and provide relevant professional education to nurses.

There were differences among the respondents with respect to the provision of stipends for students. These differences ranged from stipends being seen as encouraging individuals not interested in nursing to enter and negatively impacting on the image of nursing, to the need to increase the value of stipends.

### **Issues Related to Human Resource Production**

When the six categories relating to human resource production were analysed for patterns, seven issues emerged. These issues were: (a) recruitment; (b) integration of service and education; (c) financial resources; (d) relevancy of curriculum; (e) implementation of the curriculum; (f) sanctioned posts for faculty; and (g) preparation of faculty.



## **Human Resource Management**

This third component of NHRD is concerned with the management of nursing personnel in the workplace. The six categories which emerged through the coding process were: shortage of nurses, working environment, job satisfaction, salary and benefits, quality of care, and distribution of nurses between rural and urban areas. Three of the six categories (salary and benefits, job satisfaction, and working environment) were associated with probes arising from the conceptual framework. Two categories, shortage of nurses and distribution of nurses, were not used as probes but are identified in Hall's (1995) guidelines. One category, quality of care, emerged from the data. That category was not associated with probes or variables contained in Hall's (1995) guidelines.

### **Shortage of Nurses**

This category addresses the shortage of nurses in the work place. The perceptions of the respondents varied across level.

*Nursing Personnel:* Nurse respondents at all levels expressed the view that a shortage of nurses existed and attributed that shortage to working environment, and salaries and benefits. One nurse respondent at the federal level presented numerical data to support the contention that the shortage was more of a shortage of positions than a shortage of supply, and that a lack of employment opportunities as well as more favourable working conditions resulted in migration.

New graduates join private sector or migrate because they cannot find jobs in the government sector. On average I am issuing 6 nurses per month with No Objective Certificates

to work Abroad, where they get better salaries, better working conditions, well furnished accommodation, family visa and an air ticket to visit home after 10 months of working. Requirement of nursing is neither met at provincial nor federal level. The general ratio is 1 nurse: 40 patients, and 1-2 nurses for 12-15 patients on ICU and CCU units and there are no posts at present in the community. As I said earlier the sanctioned posts have been created very early. According to recent information that I collected I found that all Grade 14 posts were filled, hardly 1% were vacant, in grade 17 and 18 about 10% were vacant in provinces. However, these are not enough to meet the requirements in any of the provinces (16FNP).

A nurse respondent at the provincial level discussed strategies used to overcome the shortage of supply in the province. One such strategy was to encourage males to enter nursing. However, in the opinion of that respondent, that strategy did not seem to be successful as the male nurses like their female counterparts do not want to work in the rural areas. The respondent's perception was that the public does not accept nursing care from males; and the male nurses migrated abroad. A nurse respondent at the federal level commented,

In Sindh they have opened up male nursing school rather than female school of nursing. No other province has male nursing schools. You know that a female nurse is caring and sympathetic—these qualities are inborn in her and as she grows up she cares for her family and is used to caring, whereas a male does not have that tender touch that a female has. Thus it is difficult for a society to accept male nursing. There are almost 200 male students in Sindh. In next 4-5 years the requirement of numbers may be fulfilled because of these male nurses, but there will be no improvement in quality of nursing care in primary or hospital care because of the male nurses will not be able to provide that care (18FNP).

At the local level the focus of the nursing personnel was on the perceived effect of the shortage of nurses on delivery of services.

There should be nurses' coverage on wards all 24 hours. Because of shortage we do not have nurses on the wards during night. Also Sindh is still backward area and security of nurses is also a problem (27LNS).

Supply of nurses according to numbers is not enough we should have 1 nurse for 10 general beds per shift, but we don't have that many nurses (28LNP).

Because for 100 bedded hospital there are only 16 posts of staff nurses. There are 16 departments in that hospital, how can there be sufficient nurses, specially with nurses on leave, day off and deputation<sup>1</sup> (30LNP).

*Government Officials:* Respondents at the local level placed the shortage of nurses within the broader societal context and perceived that the supply of nurses was related to problems of general education, illiteracy, and training conditions.

Requirement of nurses is not being met as there are not enough nurses. You see increasing number is not the only important or necessary thing. We do need to increase the numbers but we also need to improve the quality of nurses, which is very important. Quality nurses that will be able to cope with the required level of care more effectively and efficiently. We have problem of high illiteracy. We need to increase our literacy rate. We also need to provide better facilities, proper training, proper accommodation, and increase salaries as well as benefits to enhance recruitment of nurses (15LGO).

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<sup>1</sup>Deputation is a term used when nursing personnel in the public sector are seconded to other institutions for a limited period of service or for higher education with full salary and benefits.

Another respondent at the same level expressed concern that the shortage of nurses was having a negative impact on the quality of care and was jeopardizing the safety of patients. For example:

They (students) are a risk to the patients. But if I have to choose between no care to patients because of shortage of staff nurses versus care by students then it becomes difficult because we cannot leave the wards unattended. We try to send senior nurses of third year, although sometimes we have to send first year students who then try to manage by seeking help from others. You see they have been opening new units, at one time there were 18 units then they increased to 36 units. The number of staff nurses have not increased, they have remained the same. It is ok to open new units because there is need to do so but the patients require nursing care also (14LGO).

The respondents cited a total of 10 factors contributing to a shortage of nurses (Table 5.6). Both nursing personnel and government officials at the federal level identified the highest number of factors. Only one factor, the imbalance between supply and demand, was perceived by respondents at all levels and across affiliations.

### **Working Environment**

This category contained information relating to work environment of nurses employed in the public sector.

*Nursing Personnel:* Respondents at the federal level spoke of the need for nurses to be better prepared to deal with the working environment. For instance, political and critical thinking skills, self-confidence, and a positive and pleasant attitude were discussed.

Table 5.6

**Factors Contributing to a Shortage of Nurses in Sindh**

Contributing Factors	Nursing Personnel			Government Officials		
	Federal	Provincial	Local	Federal	Provincial	Local
Imbalance between supply and demand	▲	▲	▲	▲	▲	▲
Nurses do not want to work in the rural areas	▲	▲		▲	▲	
Low salaries and benefits	▲		▲	▲		▲
Inadequate sanctioned positions; new graduates do not get employment	▲	▲	▲			▲
Limited applicant pool due to socio-cultural reasons; low literacy rate among females	▲			▲	▲	▲
Migration of nurses, e.g., inter provincial, abroad	▲		▲	▲	▲	
Lack of career structure				▲		▲
Family constraints, e.g., husband, in-laws do not allow nurse to work after marriage				▲	▲	
Male recruitment is not a successful strategy	▲			▲		
Working life of nurses is short				▲		

The symbol ▲ represents the presence of the response by one or more respondents.

Nursing personnel at the provincial level focussed on the characteristics of what they perceived to be poor working conditions. For example:

No autonomy in decision making is given to nurses, although the nurses are given responsibility of smooth running of the whole ward. Nurses cannot practice effectively or with proper procedures as taught in the SONs because of lack of equipment and supplies, negative attitude of doctors, professors and other health care workers towards nurses...lack of respect for nurses (23PNP).

Nursing personnel at the local level perceived that the working environment was paternalistic in nature and that the role of the nurse was subordinate. They perceived an ineffective nurse-doctor relationship and male domination by doctors, patients, attendants, and other health care professionals. They expressed their view that the poor working environment was impacting negatively on the nurses.

Working conditions are not very good, environment is not good, attitude of others towards nurses is not good. Lack of supplies on the wards affect the work of nurses and nurses are in front line so they get all the brunt. Nurses are in tension and stress because of lack of supplies. With the prevailing political situation, the environment has become insecure for nurses; there is no safety and security. The nurses are abused and harassed by the patients, colleagues, peers, doctors, students, etc. There is no respect given to nurses as it used to be few years' back. As a result students are moving away from patients day by day and they are in state of fear all the time (25LNP).

*Government Officials:* The majority of government officials at the federal level stated that they were unaware of the actual working environment. Socio-cultural,

economic, and political factors affecting work of nurses were identified by officials at the provincial and local levels.

Ours is a male dominated society, which is generally not very good for all working ladies even teachers. They work odd and long hours and could be called in emergency. All this effects working conditions. The budget, finance decisions are influenced by two major factors: political, who is in power and on feudal lords of the areas; thus nurses lose out on priority for budget (12PGO).

Society at large does not accept nurses coming out of their homes and working with men...There is need for 200 doctors in my institution but the government has assigned 700 doctors. There are about 200 nurses on the wards and the need is about 500...all the decision regarding human resources such as transfers, postings, and deputation are based on political pressures (14LGO).

Regardless of affiliation the majority of respondents at all levels perceived that the working conditions of nurses were poor and identified factors contributing to those conditions (Table 5.7). A total of 11 factors were identified. There were no differences in responses among nursing personnel across levels. Among the government officials, the closer they were to the work place, the greater the number of factors they perceived; federal officials identified three factors, whereas the local officials identified eight factors. Several factors were seen as overlapping with factors influencing job satisfaction.

Table 5.7

**Factors Seen as Contributing to Poor Working Environment**

Factors	Nursing Personnel			Government Officials		
	Federal	Provincial	Local	Federal	Provincial	Local
Socio-cultural factors: lack of respect, low image and status	▲	▲	▲	▲	▲	▲
Lack of resources: financial, supplies, equipment	▲	▲	▲	▲	▲	▲
Political instability, pressures, interference, and insecurity	▲	▲	▲	▲	▲	▲
Male dominated wards	▲	▲	▲		▲	▲
Public's unawareness of nurses' work	▲	▲	▲		▲	▲
Lack of incentives	▲	▲	▲		▲	▲
Shortage of nurses	▲	▲	▲		▲	▲
Lack of proper accommodation and transport	▲	▲	▲			▲
Increased non-nursing and clerical duties	▲	▲	▲			
Lack of team work	▲	▲	▲			
No recognition for nurses' work	▲	▲	▲			

The symbol ▲ represents the presence of the response by one or more respondents.



### **Job Satisfaction**

All respondents expressed the opinion that nurses in the province were generally not satisfied with their jobs. The factors that negatively affect job satisfaction, as perceived by respondents across levels and affiliations, are presented in Table 5.8.

One respondent in the nursing personnel category at the federal level stated that it was her opinion that nurses were not satisfied, but

We need proper research studies to understand why and what factors affect job satisfaction in our country. We have no facts and figures to know why they are not satisfied for which we have to have research studies, in my opinion some of the factors that affect their jobs satisfaction are: shortage of nurses; males domination in hospitals; nurses work under suppression, and great stress (18FNP).

Other nursing personnel at the provincial level expressed their views as:

I think nurses are not satisfied with their jobs. Actually I sometimes feel they do not even work because they have no equipment, for example no thermometers, and nurses sometimes bring their own thermometers for the patients use (22PNP).

All the nurses that I have met are not satisfied with their job due to odd working hours, long night hours...but some are frustrated because of lack of facilities. They are frustrated because they can not even satisfy their patients (23PNP).

Table 5.8

**Factors Negatively Affecting Job Satisfaction**

Factors	Nursing Personnel			Government Officials		
	Federal	Provincial	Local	Federal	Provincial	Local
Socio-cultural barriers	▲	▲	▲	▲	▲	▲
Political instability, interference	▲	▲	▲	▲		▲
Stressful working conditions, e.g., long working hours, overworked due to shortage of nurses	▲	▲	▲	▲		▲
Lack of resources	▲	▲	▲			
No opportunities for further growth, e.g., lack of continuing education, no career planning	▲			▲	▲	
Lack of incentives and inadequate remuneration			▲		▲	▲
Inadequate benefits: accommodation, transport			▲	▲		▲
Lack of security			▲		▲	▲

The symbol ▲ represents the presence of the response by one or more respondents.

As indicated in Table 5.8, eight factors were perceived as negatively affecting job satisfaction of nurses. One factor (socio-cultural barriers) was mentioned by respondents at all levels and affiliations. Perceived socio-cultural barriers included: male domination on the wards, lack of respect for nurses from the public and other health care professionals, and low image and status given to nurses by society. Two factors, identified at all levels and across both affiliations except by the government officials at the provincial level were: political instability and political interference, and stressful work environment. For example:

Nurses do not get respect from public and on the wards by co-workers. I don't think nurses are satisfied with their jobs because of low status and poor working conditions...lack of security due to political problems and prevailing [unstable] law and order situation (9PGO).

If a political figure gets admitted to the ward they expect VIP treatment and if they perceive that we are uncooperative then they threaten us. There is always fear of harassment and abuse from their attendants. They also interfere unnecessarily with the ward operation and routine (32LNP).

Nurses are overworked and underpaid with no career planning. They have low salaries and not a good environment. Their accommodation is not up to mark. There are socio-cultural barriers and there is low image of nursing...Distribution of nurses in the system is due to political pressure, that is their transfers in jobs, their job postings, and continuing education (4FGO).

Nursing personnel at all levels perceived that the lack of resources was an important factor in job dissatisfaction. Lack of resources referred to a lack of supplies and equipment such as thermometers, water, linen, and medications needed to provide

nursing care to the patients. Similarities were noted in the perceived factors identified by respondents at the local level regardless of affiliation. Respondents at the local level perceived the greatest number of factors.

### **Salary and Benefits**

Under salaries and benefits were the responses which clustered around remuneration and benefits such as transport and accommodation given to nurses in the public sector. Perceptions of salaries and benefits differed across and within levels and affiliations.

*Nursing Personnel:* Respondents at the federal level placed salary and benefits within the larger societal context. Their perceptions were that, although salary and benefits were congruent with the country's overall economic condition, given the nature of the nurses' work, they were inadequate. Nurses were seen as needing additional benefits such as transportation and day care facilities in order to deal with the societal constraints placed on working women. The nursing personnel at this level also perceived that the beginning grade for a qualified nurse should be increased. The rationale was that the 4 years of professional education required to enter nursing meets the criterion for a higher grade. They stated that the grade and its salary and benefits affects nurses' image and status; increasing the beginning grade would help attract more girls into nursing. The nursing personnel at the federal level perceived that promotion and increase in salaries and benefits is based on seniority, that is, on years of service. According to these nursing

personnel, no recognition is given “for additional education and good performance” and this contributes to low morale. For example:

If a nurse after matriculate completes 4 years of nursing, she becomes a professional technical person. She is not given the status of a technical person. Initially, even if she begins in grade 14 she remains in the grade for 10-15 years and many times retires in the same grade without promotion. Nobody bothers about her—obviously she becomes frustrated—no incentives, reward, or better grade is provided for better performance in public sector. This is not a good method and does not help the professional’s image (18FNP).

Salaries are less for staff nurses; they should have at least grade 16 as beginning grade. Their benefits need improvement (19FNP).

One respondent reiterated her perception that, while nurses were part of the civil service, and the rules and regulation applied to all employees in the public sector, benefits seemed to differ across professional groups. For example:

There is special allowance for nurses with extra education. Although this is a rule, it is not being implemented and nurses with higher education are being deprived of this allowance, and this causes demotivation. This further discourages other nurses to go for higher education. Doctors get teaching allowance and non- practising allowance, but nurses do not get teaching allowance. Nurses working in specialization areas do not get any privileges, but doctors get professional allowance because doctors are strong body and have representation in policy making and decision making (20FNP).

Some of nurse respondents at the provincial level compared salaries and benefits across cadres within the government structure and thought that those of nurses were at an

acceptable level. Others perceived the overall salaries of nurses to be low. The low salaries and increasing inflation were seen as reasons for finding employment in the private sector while continuing to be employed in the public sector.

If we look at national salaries and benefits across all categories, salaries for nurses is not bad. Benefits are also ok. They get accommodation, their working hours have been modified, and nurses are able to take on part-time jobs in other institutions and now they can set up their own practice if they wish to (21PNP).

Nurses are getting less salary and benefits compared to high cost of living, it is not enough. If nurses would get enough salaries they would not do double jobs nor would they migrate. At present, they are running to other jobs and not paying attention to government jobs because they have very low basic pay and how can they meet their basic expenses if they are married with children (23PNP).

At the local level, among the nurse respondents, the perceptions of nurses' salary and benefits ranged from inadequate to acceptable.

Salaries of nurses are not according to the prevailing economic condition and rising inflation. Conveyance allowance and accommodation allowances should also increase. The salaries of nurses are very low because cost of living is increasing. Continuing education benefits should be given, scholarships should be provided for nurses on merit basis (26LNP).

Other professionals could augment their income through private practice, whereas nurses cannot. Benefits for nurses are inadequate, particularly the transport and accommodation; and we do not get any medical allowances. We can only get the medicines if available in our hospitals (27LNP).

Salary and benefits are ok. Accommodation is free with gas and electricity (28LNP).

*Government Officials:* Government officials at the federal level perceived salaries and benefits to be inadequate and the pay scales needed to be increased, but the grades for nurses did not need to be changed. The officials at the provincial level placed the issue of salary and benefits for nurses in the context of inadequate compensation for employees in the public sector in general. Some expressed the belief that nurses receive better salaries and benefits such as residence, uniform, and mess allowance than do other workers. In contrast, others thought that the salaries were inadequate compared to the jobs they were required to do and compared to market rates. Officials at the local level suggested that salary and benefits should keep pace with inflation and therefore needed to increase.

### *Quality of Care*

This category refers to the quality of nursing care in government hospitals in the province. All the respondents were consistent in their perceptions that quality of nursing care was poor and needed improvement. Nursing personnel articulated nurse-related factors whereas government officials attributed poor quality nursing care to broader socioeconomic and political factors.

*Nursing Personnel:* Respondents at the federal and provincial level perceived the educational preparation to be a factor contributing to poor quality of care. They identified the lack of in-service, student workforce, and the socialization of nurses as key issues impacting on care. For example:

Nurses are taught to be task oriented and therefore they do not develop critical thinking and analytical skills. Hence, they were not prepared to provide intelligent and competent

nursing care. There is no in-service education available for practising nurses to update themselves with the new technology and research...leadership skills are not developed. Nursing lacks committed, dedicated, and hardworking leaders and role models...there are no standards of quality of care for nurses (17FNP).

The nurses at the local level focussed on work place factors. They believed that low quality of care was due to:

Acute shortage of nursing; high workload; lack of proper supply and equipment; and poor working environment. Nurses are overburdened, for example, for 50 patients on a ward there is one staff nurse and 2-3 student nurses. How can they provide quality care to 50 patients? Furthermore, she has to deal not only with patients but also with patients' relatives and attendants who accompany patients. Besides we have domination of doctors on the wards, nurse has to attend to these doctors and carry out their orders. Therefore with such shortage of nurses, the quality of care provided by nurses is affected automatically (35LNP).

Another nursing respondent at the same level perceived that deterioration in quality was because of caliber of students entering the nursing programme. For example:

The quality of nurses is affected by caliber of students coming into nursing. The reason for joining nursing is usually money and not interest or motivation, therefore they do not want to work hard nor are bothered to pass the examination and the quality is affected. Also some private institutions hire unqualified person or a nurse aid to do work of nurses, thus affecting the quality of care provided (29LNS).

*Government Officials:* The perception of a government official at the federal level was that quality of care has been deteriorating with the passage of time due to “general



societal apathy”. The officials at the provincial level felt that poor quality was because “nurses and doctors are apathetic, the medical ethics are not followed, and generally negative attitude prevails among medical personnel and society as a whole” and that standards of nursing care were lacking particularly in public institutions. From the perspectives of the respondents at the local level, political pressures also affected negatively on quality of care, budget allocations, and the general work environment.

### **Distribution of Nurses Between Rural and Urban Areas**

This category contains all responses related to distribution of nurses between rural and urban areas. In contrast to perceptions regarding the current nursing human resource situation under the planning component, the respondents, in their discussions of the management of nursing personnel, focussed exclusively on distribution between rural and urban areas.

Some of the respondents from both affiliations, at the federal and provincial levels, perceived that nurses were unwilling to work in the rural areas. However, respondents working in rural areas felt that retention of nurses in the rural areas would be improved with the recruitment of young women from the local community into schools of nursing. It was their view that nursing students in schools of nursing in the rural areas currently are either from the urban areas or from other provinces of the country. Upon graduation, they either go back to their provinces or go to urban areas. Some of the reasons perceived by respondents at the local level for nurses not wanting to work in the rural areas were: lack of facilities for nurses and their families such as accommodation,

recreational activities, transport, education for children; lack of security; lack of incentives; and lack of continuing education. For example:

Rural areas do not have nurses and doctors because of lack of facilities such as: no electricity, no proper roads, no educational opportunities for their children, and no recreational facilities. We need local girls to be nurses as they will stay in the rural areas (6FGO).

I think the supply of nurses in Sindh is less. In Sindh rural areas will be adequate in few years when girls from Sindh graduate and they will work in rural and urban areas. At present the nurses are not working in the interior and small places, but when girls from Sindh will graduate they will work in small places such as BHU and RHCs (30LNP).

### **Summary of Human Resource Management**

The nursing personnel viewed management from the perspective of a health professional and health care institutions, whereas government officials considered it from a broader societal perspective. A shortage of nurses was seen as having an impact also on the planning and production components of health human resource development. Salary and benefits were seen as ranging from inadequate to acceptable. All nurse respondents said that, due to the social constraints on working women, nurses should be given additional benefits such as transportation and accommodation.

Most respondents perceived that nurses were dissatisfied with their jobs and a variety of reasons were identified. The poor working environment was described as having a negative impact on the quality of nursing care. The factors affecting job satisfaction and work environment, and reasons for a perceived shortage of nurses were interrelated and in some instances overlapped (Table 5.8). Most of these factors could be

broadly summarized as socio-cultural, economic, and political factors affecting nursing human resource management. Quality of care emerged from data and all respondents were consistent in their appraisal and stated it needs improvements.

### **Issues Related to Human Resource Management**

When the six categories relating to human resource management were analysed for patterns, six issues emerged. The issues were: (a) resources; (b) respect and recognition; (c) degree of job satisfaction; (d) inadequate salary and benefits for nurses; (e) low quality of nursing care; and (f) shortage of nurses.

### **Themes**

At the culmination of describing and analysing process, the 22 issues which emerged from the categories were analysed for patterns and collapsed into five themes (Table 5.9). As shown, each of the five themes is associated primarily with one of the three components of NHRD, however, overlap does exist. The overlaps demonstrate the interrelationships among the components.

*Planning.* Nine issues arose from the categories under the component of planning. When these issues were analysed for patterns, they clustered under three themes: (a) formulation of policies; (b) planning-implementation gap; and (c) supply-requirement imbalance. The first theme, formulation of policies, encompassed two issues: awareness of policies and politics of planning.

Table 5.9

**Planning, Production, and Management Components: Issues and Themes**

Categories of Perception	Issues	Themes
<b>Planning:</b>		
Policy formulation	Awareness of health policies	Formulation of policies
Current planning	Politics of planning	
HRD plan	Implementation of policies	Planning-implementation gap
Involvement in planning	Nursing input	
Current NHRD	Supply and requirements	
Level/distribution	Number of sanctioned posts	
Nursing positions	Utilization of nurses	Supply-requirement imbalance
	Maldistribution of nurses	
	Labour substitution	
<b>Production:</b>		
Status of education	Recruitment	
Educational capacity	Service/education integration	
Curriculum	Financial resources	
Faculty-student ratio	Relevancy of curriculum	Quality of education
Applicant pool	Implementation of curriculum	
Student stipend	Faculty sanctioned posts	
	Faculty preparation	
<b>Management:</b>		
Shortage of nurses	Resources	
Working environment	Respect and recognition	
Job satisfaction	Degree of satisfaction	Working conditions
Salary and benefits	Inadequate salary/benefits	
Quality of care	Low quality of care	
Distribution of nurses	Shortage	

Two issues, implementation of policies and nursing input, constituted a second theme, planning and implementation gap. The third theme, supply-requirement imbalance, encompassed five issues: supply and requirements, number of sanctioned posts, utilization of nurses, maldistribution of nurses, and labour substitution.

*Production.* There were seven issues which emerged in relation to production: recruitment, service/education integration, financial resources, relevancy of curriculum, implementation of curriculum, faculty sanctioned posts, and preparation of faculty; all were related to one theme, quality of education (Table 5.9).

*Management.* Analysis revealed that six issues under the management component (resources, respect and recognition, degree of satisfaction, inadequate salary/benefits, low quality of care, and shortage) were interrelated issues which could be consolidated under one theme, working conditions (Table 5.9).

### **Similarities and Differences**

Once the five themes were identified, the data were analysed for similarities and differences by levels and affiliation. That analysis revealed that similarities and differences were greater across groups (affiliation) than within groups (levels). The nursing personnel were a relatively homogeneous group. The differences within the government officials group were primarily between those at the local level and those at the provincial/federal levels. Similarities and differences among respondents by themes and affiliation are presented in Table 5.10 (Similarities) and Table 5.11 (Differences).

Table 5.10

**Similarities of Key Stakeholders' Perceptions by Themes and Affiliation**

Components	Themes	Nursing Personnel/Government Officials		
Planning	Formulation of policies	Deficient current planning		
		Hierarchical planning		
		Lack of health human resource data		
		No prior needs assessment		
		No comprehensive HRD plan		
	Planning-implementation gap	Lack of clarity between health policies/plans		
		Limited implementation of policies		
		Supply/requirement imbalance	Imbalance in the geographic distribution	
			Distribution imbalance across levels of care	
			Community health nurses required	
Financial and political factors influence decision making				
Production	Quality of education	Sanctioned positions not related to requirements		
		Lack of awareness of supply and demand		
		Unsatisfactory and deteriorating quality of education		
		Emphasis on quality, not quantity		
		Increase student seats		
		Provision of stipends affects quality of applicant		
		Review of admission criteria		
		Active recruitment efforts required		
		Management	Working conditions	Shortage of nursing personnel
				Poor working conditions
Job dissatisfaction				
Poor quality of nursing care				
Incentives to work in rural areas				

As depicted in Table 5.10, similarities of perception among the nursing personnel and government officials were present in all five themes. Within the health policy and planning component and under the theme, formulation of policies, both groups perceived the current planning process to be centralized and deficient in many respects; planning as being hierarchical and top-to-bottom; data for health human resource planning to be inadequate or lacking altogether; that no comprehensive health human resource development exists but is needed, and that there is a lack of clarity with respect to health policies and health plans. Under the theme, planning-implementation gap, both groups were in agreement that there was limited implementation of policies and as was depicted in Table 5.4 and Table 5.5, there was considerable agreement on the factors that impede or facilitate implementation of FYPs. Similarities relating to the theme, supply-requirement imbalance, were: a geographical maldistribution of personnel in favour of urban areas; imbalances in distribution across levels of care with the greater concentration being in tertiary care hospitals; nurses being needed in community health; financial and political factors influencing decision making regarding nursing human resources; number of sanctioned posts not being related to requirements; and a lack of attention in the planning process to the relationship between supply and requirements.

Similarities in the perceptions of the two groups with respect to the theme, quality of education, in the production component were: the quality of nursing education is unsatisfactory and deteriorating; a greater emphasis should be placed on quality rather than on quantity; any increase in the number of students seats should be related to an increase in number of faculty positions or agreement of need for an acceptable faculty-

student ratio; the negative impact of providing student stipends on recruitment into nursing; a need to review and raise the admission criteria for schools of nursing; and the need for active recruitment efforts as a means of raising the academic level of applicants.

The only theme in the management component was working conditions. The nursing personnel and government officials held similar perspectives on the shortage of nursing personnel and the contributing factors, although they differed with respect to seeing “the working life of nurses being short”, “family constraints”, and “lack of career structure” as a contributing factors (Table 5.6). Similarities were noted in the perceptions of the working environment being poor and the socio-cultural and political factors contributing to the situation, that is, political instability, pressures and interferences, insecurity with respect to personal safety, lack of respect, and negative image and low social status. Both groups identified nurses as having low levels of job satisfaction and both identified similar socio-cultural and political factors, as well as stressful working conditions as having an impact on job satisfaction. In addition, both identified the quality of nursing care in hospitals as being poor and the need to provide incentives for health care professionals, including nurses, to work in rural areas.

Table 5.11 illustrates the differences in perceptions between the nursing personnel and government officials. With respect to the *formulation of policy* theme, differences were noted in relation to awareness of the planning process, involvement in policy formulation and accessibility of policies or FYPs. Differences in perceptions that were related to the *planning-implementation gap* centred around factors impeding implementation, that is, accessibility of policy/planning documents, input by nurses, and societal factors impeding implementation (Table 5.4).



Table 5.11

**Differences of Key Stakeholders' Perceptions by Themes and Affiliation**

Components	Themes	Nursing Personnel	Government Officials
Planning	Formulation of policy	Less awareness of the planning process and less involvement in policy formulation and the decision making process	Greater awareness of the planning process and more involvement in policy formulation
		Limited awareness at the federal level and no awareness at the local level	Greater awareness and involvement at the federal level and least awareness at the local level
	<i>Difference: Awareness of planning process and involvement in policy formulation</i>		
	Planning-implementation gap	FYPs seen at all levels as being inaccessible	FYPs seen by local level as not readily accessible
			Societal conditions impede implementation
<i>Difference: Accessibility of information and impeding factors</i>			
	Supply-requirement imbalance	Well informed regarding sanctioned positions for nurses	Limited awareness of numbers and distribution of sanctioned nursing positions
<i>Difference: Awareness of sanctioned posts</i>			
Production	Quality of education	Professional perspective about deterioration of quality in nursing education	Deterioration in quality of nursing education within the broader societal context
		Problems in the system were attributed to close linking of education to the need service	General apathy in society and deterioration in general education seen as impacting on nursing education
	<i>Difference: Rationale for deterioration in quality of nursing education</i>		
		Nurses at all levels familiar with production issues such as inadequate faculty-student ratios	Not familiar with production information such as educational capacity, faculty-student ratios
<i>Difference: Familiarity with information about production of nurse personnel</i>			

Components	Themes	Nursing Personnel	Government Officials
Production (cont'd)		Underemployment of qualified teachers and inadequate number of faculty positions	
		<i>Difference: Employment of faculty</i>	
		Relevant revised curriculum	Deficient curriculum and Western orientation
		<i>Difference: Relevance of curriculum</i>	
		Problems with implementing community health component in the curriculum	Community health content not incorporated <sup>3</sup>
		Implementation of curriculum hindered due to a lack of resources: human, financial, and material	Unaware of implementation issues
		<i>Difference: Curriculum implementation issues</i>	
Management	Working conditions	Focussed on qualification of applicants and the selection process	Discussed applicant pool within broad societal context
		<i>Difference: Quality of applicant</i>	
		Local in-depth knowledge of the situation	Knowledge of working conditions based on external influences such as media and informal networks
		Focussed on workplace conditions affecting human resource management	Viewed human resource management from broader societal perspective and focussed on social, cultural economic, and political factors
		<i>Differences: Knowledge about working conditions; and factors affecting human resource management</i>	

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<sup>3</sup>Curriculum was reviewed and revised with the help of CIDA and Canadian consultants. The implementation of the revised curriculum began in 1992. The curriculum contains community health content throughout the 3 years of the nursing programme.

The differences in perception regarding *supply-requirement imbalance* were associated with awareness of the number of sanctioned posts for nurses. Under the theme, *quality of education*, differences existed in relation to the reasons for the deterioration in quality of nursing education; familiarity with details regarding nursing education; underemployment of nurses qualified as teachers; relevancy of the curriculum; issues relating to curriculum implementation; and the quality of the applicants. Differences of perception in relation to the theme, *working conditions*, centred around knowledge about working conditions and factors affecting management of nursing personnel. The latter included differences in perceptions of three factors affecting working environment, that is, increased non-nursing and clerical duties, lack of team work, and no recognition for nurses' work (Table 5.7) and one factor affecting job satisfaction, that is, lack of resources (Table 5.8.).

### **Summary and Conclusions**

The analysis of the data was directed toward answering the research questions: (1a) What are the perceptions of key decision makers regarding planning, production, and management of NHRD; (1b) What differences and similarities exist, if any, between decision makers at various levels and of different affiliations?; and (2) What are the issues identified regarding the current NHRD situation in relation to specific aspects of planning, production, and management of NHRD as perceived by the stakeholders? The findings provided information on the perceptions of key stakeholders in relation to 19 categories under the three major components of NHRD. Twelve of the categories were associated with variables in the conceptual framework which were used as probes in data

collection, four were associated with variables in the conceptual framework which were used as probes only when necessary during data collection. The remaining three categories emerged from the data. Similarities and differences in perceptions were identified among respondents classified by occupational level and affiliation. For many categories the perceptions of respondents at all levels within the two groups were relatively homogeneous. The major differences in perception occurred among the respondents when grouped by affiliation.

The findings were analysed further for patterns and 22 issues were identified, nine pertaining to planning, seven to production, and six to management. Those issues were analysed for themes and the following five major themes emerged: formulation of policies, planning-implementation gap, supply-requirement imbalance, quality of education, and working conditions. Following the identification of themes the findings were analysed to identify similarities and differences among by respondents by affiliation. Similarities and differences in perception were identified in relation to all five themes.

The findings indicate that the perceptions of major stakeholders in NHRD may be categorized in relation to major themes under each of the three components of NHRD and that similarities and differences exist in those perceptions. The discussion of the themes and similarities and differences as they relate to existing and related literature on HHRD in general and NHRD in particular, and to HHRD and NHRD in Pakistan is presented in Chapter 6.

## CHAPTER 6

### DISCUSSION

In this chapter, findings are interpreted and discussed. The discussion is organized around the five themes: formulation of policies; planning and implementation gap; supply-requirement imbalance; quality of education; and working conditions. There is a return to the literature to assist with understanding the themes, and consideration of these themes within the context of NHRD in the Province of Sindh.

#### Planning

##### *Formulation of Policies*

The theme, formulation of policies, incorporates both awareness of health policies and plans, and the process of planning and policy formulation.

Planning for the health sector, along with other sectors, is prepared in the form of FYPs. In contrast to many countries which have not addressed HHRD at the macro level (O'Brien-Pallas & Hirschfeld et al., 1997), Pakistan, over the past 20 years, has incorporated the planning, production, and management dimensions of HHRD in its national health policies established on a 5 year basis. Additionally, in 1990, the Ministry of Health with assistance from the Asian Development Bank, developed a national Health Manpower and Training Plan (HMTP). That plan addressed all cadres of health care and

used an effective-demand approach in estimating human resource requirements. The federal and provincial governments participated in the development of that plan. The HMTP is comprehensive and congruent with the approach to HHRD advocated by Hall (1988).

The national health policies and the HMTP are indicators of the governments' awareness of the importance of HHRD. However, the findings indicate that many of the key stakeholders, especially nursing personnel at the provincial and local levels, do not have awareness of the health policies and plans and/or of the processes by which they are formulated. None of the key stakeholders referred to the existence of the HMTP; all stated that although there was a need for a comprehensive health human resource development plan, none existed. There was lack of clarity among stakeholders about the national health policies and five year plans. Some stakeholders viewed the FYPs as containing policies, whereas others viewed them as merely guidelines. The relationship between a policy and a plan was not clearly understood. For example, some stakeholders were not clear as to whether plans were needed to formulate policies, or whether the policies were needed to formulate plans. The findings are indicative of weakness in the process by which policies are formulated, plans developed, and information disseminated.

The FYPs were identified as being developed through a centralized process, not based on information and inaccessible to most of the health care professionals and the public. There was convergence in perceptions among most of the key stakeholders regarding current health planning in Pakistan in that they perceived planning to be defective, fragmented, and hierarchal in nature with a top-downward approach. The

decision-making power is vested in a few individuals at a very senior level, such as the Chief of Planning Division, the Chief Minister of each province, and the Finance Minister. The overall structure is a carryover from what existed pre-independence. This approach is characterized by an hierarchal structure of authority, often pyramidal in shape, with very little lateral communication or coordination (Banuri, 1997; Kennedy, 1987).

Although the process of planning policies (FYPs) occurs over a year and takes many “human hours”, the development of the FYPs has not followed the rational steps in the formulation of policies suggested in the literature. These steps are: definition of policies, weighing of alternative options, formulation of strategies, and preparation of a plan of action (Cooksey & Krieg, 1996; Goggin, 1987; Janis, 1992; Sabatier & Mazmanian, 1979; Walker, 1994; WHO, 1985). One of the key stakeholders reported that the process of preparation of FYPs is lengthy because the working groups do a thorough job of studying the issues, but the problem arises when they present the reports. The format for presenting is a highly structured process and there is rigid adherence to rules regarding the length of the document, the content, and language. The emphasis is often on projects that are donor driven; that will allow access to development funds from external donors and not on the requirements or needs of the sectors. Fragmentation occurs when donor groups support development of the infrastructure without human resource needs being addressed. Fragmentation in planning also occurs when a change in one sector has an impact on another sector, but without concomitant changes being

planned for the second sector. For example, an increase in beds or services (planning) is not accompanied by a corresponding increase in nursing personnel (production).

The very nature of FYPs could be contributing to both the weaknesses of planning, as well as to the difficulty in implementation. Historically, a life cycle of FYPs was a norm for many countries, but these plans did not contain sufficient information or the degree of detail that is needed for operationalization (Green, 1995). Recently, there has been increasing recognition that such a cycle is too long; according to today's context where changes are occurring rapidly the planning cycles need to be short. Five year plans tend to quickly become out of date and out of touch with changing needs. Green (1995) recommends that countries use 3 year rolling plans. Year 1 of the plan would contain the most detailed operational plans and Year 3 would be a broad outline. Each year the plan would be rolled forward and prepared in a similar detailed manner.

Although the strength of the policy formulation approach in Pakistan is that, as recommended by Mazmanian and Sabatier (1989), it allows for the perspectives of decision makers at the senior levels to be considered, it neglects other important players such as middle managers referred to by Lipsky (1980) as 'street-level bureaucrats.' The middle level bureaucrats as the implementors require a thorough understanding of the policies to ensure implementation. As pointed out by a key stakeholder, the top-down approach reinforces the belief that framers of policy decisions are the key decision makers and others are expected to follow instructions and "obey their seniors."

Pakistan is not unique with reference to health planning. For many countries the record on health planning has not been good (WHO, 1989). These countries lack the



planning culture, political will, resources, and expertise necessary for health planning (Green, 1995; WHO, 1989). As a result, the health systems in many countries continue to have deficiencies and an imbalance of resources.

The literature is limited on policy formulation processes in developing countries such as Pakistan, characterized by chaotic, politically unstable conditions, rapid change in governments, and turnover of key officials. Research indicates that countries formulate policies in different ways, at different times, for different purposes, and that the policy formulation process has to be tailored to the country's individual situation (Morgan, 1993). A number of political scientists and analysts have proposed macro and micro theories to describe important elements and constraints of a policy process in light of a country's social and economic circumstances. They have stressed influencing factors such as: individual interests, beliefs, and values (Lomas, 1993; WHO, 1985); organization rules and procedures; the broader socioeconomic environment in which political institutions operate; and the tendency for bureaucratic officials and interest group leaders to form relatively autonomous policy subsystems (Lomas, 1993; Sabatier, 1987, 1988). Understanding these factors in relation to Pakistan can assist in explaining the planning process.

Many of the decision makers and policy makers within the bureaucracy are political appointees and change with the governments or at the order of politicians and/or Chief Minister. There is a rapid turnover of government officials. They seldom remain long enough in their positions to complete a cycle of formulation, implementation, and reformulation of policies. Therefore, their political commitment, responsibility, and

accountability for formulation of policies is short lived. The political will, so necessary for any HHRD, is not present because officials often do not have a long-term commitment or follow the process through to its implementation and evaluation. The officials may not be around at the time of implementation and there is a lack of follow up, monitoring, and evaluation.

Bureaucratic systems require rules and regulations and adherence to those rules and regulations. The bureaucratic systems have broken down under political pressures and the influence of powerful individuals. As aptly described by one of the stakeholders, the country is functioning on an informal process, whereby decisions are made on an ad hoc basis influenced by pressure groups and not in accordance with the rules and regulations. This process is seen as providing bandaid measures to maintain the status quo or avert disaster.

The key stakeholders identified that although inputs for policy formulation process are obtained from selected provincial level government officials (e.g., Chief Ministers, Finance Ministers, and Secretaries of Health), the decisions are primarily influenced by members in a policy subsystem. That subsystem is comprised of selected bureaucrats and politicians, interest groups, and powerful feudal lords (Nasim & Akhlaque, 1995; UNDP, 1993). Baumann (1997) reinforces that the policy subsystem influences policy formulation in situations where policy makers face constraints in creating public policies. It is recognized that policy makers work within constraints such as inadequate organizational resources, limited capacity to process information, unresolvable uncertainties, incomplete knowledge, and bureaucratic power struggles

(Janis, 1992). As indicated by the key stakeholders, government officials in Pakistan face constraints such as lack of reliable information, breakdown of institutional rules and procedures in the country, and competing demands for limited resources. For instance, the allocation of the GNP in Pakistan indicates that the social sector, including health, has low priority. With 1% of the GNP allocated to health and 1.6% to education, Pakistan ranks as one of the lowest among developing countries. Janis (1992) further explains that policy makers strive to obtain a comprehensive view of alternatives, recognizing and weighing trade-offs among competing values in making policy decisions. Pakistan is ranked 134<sup>th</sup> and has an equally poor human development index (HDI). The allocation on military spending is one of the highest (UNDP, 1994). The HDI ranking may reflect the value given to health and women's development.

In contrast to the government officials, the majority of nursing leaders in the study were not aware of the process of policy formulation and indicated they did not have influence on policy formulation and planning. The input of the predominantly female nursing personnel was seen as not comparable to that of their male counterparts. For instance, the directorates for nursing in the provincial governments do not have influence on policy formulation and decision making comparable to that of the directorates of health led by male physicians. Bangladesh, another developing country, reported similar findings (O'Brien-Pallas & Hirschfeld et al., 1997). These findings could be attributed to nursing leaders being a predominantly female group in a society in which they have low status. O'Brien-Pallas and Hirschfeld et al. (1997) reported that WHO member countries such as Argentina and Colombo, "argued that nurses by virtue of being a female-

dominated group had low status and no place in policy development” (p. 32). Some developing countries reported that professional associations had submitted policy recommendations to the Ministry of Health, but the recommendations were not given serious consideration by the government. In contrast to Pakistan, over half of the country respondents (54%) reported that nursing had, compared to other health professionals, influence on policy development at the national level. These countries perceived nurses’ contributions “as valuable and necessary for health service policy development” (O’Brien-Pallas & Hirschfeld et al., 1997, p. 60). Alternately, the perceived lack of influence in policy formulation by nursing personnel at the provincial and local levels in Pakistan may not be discriminatory against nursing per se, but a reflection of the planning process itself in which those charged with implementing policies, regardless of gender and profession, are effectively excluded.

In Pakistan, the emphasis has been on the formal process of planning, which has resulted in planning being seen as a bureaucratic function. WHO (1989) states that if the planning does not incorporate production and management, then the document becomes only a paper document. Thus, planning the document is an end in itself and does not affect change. According to Green (1995) such a plan ends up on the shelves of senior administrators and does not have any observable impact on the health status of the country. The findings indicate that this is occurring in Pakistan.

An example of policy not linked to planning in relation to the production component of HHRD was provided by one of the key stakeholders. A policy was formulated to address the shortage of nurses and an announcement was made that

enrolment of students in schools of nursing would be doubled. The policy was created by the federal government and the provinces were directed to comply. A donor agency agreed to provide the development budget and the provinces agreed to pick up the operational or recurrent costs. In order to increase the enrolment six new schools were opened in the districts of Sindh province. The overall enrolment of students in the province doubled. Although school buildings and limited equipment were provided through development funds, there was no corresponding increase in the overall number of positions for the teachers as funding of additional positions would need to come from the recurrent budget of the province. No funds from the recurrent budget were allocated for equipment or other teaching aids. Thus, the number of schools and student enrolment increased, but the quality of education remained poor as inadequate planning for implementation had been conducted (I. Moghul, personal communication, June 1997).

The development budget was committed at the federal level but provincial governments, although making a commitment to provide recurrent costs, did not follow through with that commitment. One could hypothesize that with respect to the issue of doubling enrolment, the decision makers did not want to: (1) antagonize the donor who may withdraw support; (2) jeopardize losing a larger project in which increasing enrolment of nursing students was a component; (3) antagonize senior provincial government officials such as the Chief Minister, on whom job promotion depends and who has power to transfer; or (4) transgress a cultural norm, that is, not to disagree or confront seniors.

The health policy formulation process is complex in both industrial and developing countries, and there is no simple method of policy development. In a country such as Pakistan, the policy formulation process becomes more challenging and complex due to the chaotic and unstable conditions, as well as political, economic, social, and cultural influences. Sabatier (1990) argues that although the beliefs of policy makers can change under unique conditions, it takes time. A decade or more is necessary for policy-oriented learning to take place. He further contends that coalitions, groups, and individuals or organizations can engage in a public debate about these beliefs and bring about changes. However, formation of coalitions and engaging in public debate is extremely difficult in a country marked by political and economic instability, with feudal lords exerting power, and in which an elitist culture, low literacy rate, and low status of women are prevalent. The high illiteracy rate and the fact that more than 30% of population lives under the poverty line, result in there being no voice of the people to demand their rights to the basic necessities of life (Kemal & Mahmood, 1997). The situation is further compounded by socio-cultural restrictions on females in a male-dominated society (Jan, 1996).

### **Planning-Implementation Gap**

The theme, planning-implementation gap, encompasses both the process of implementing health policies and nursing input into the process.

The five year plans 1978-1998 address all aspects of health human resource development. Many FYPs contain explicit targets for NHRD. For example, increase the

output from schools of nursing (SONs) by a specified number by the end of a 5 year period. The findings of this study reveal that although actions have been taken (for example, increasing the numbers of schools of nursing in Sindh), there has not been a concomitant resource allocation to allow for creation of teaching posts or for provision of learning resources, equipment, and other essentials. An important recommendation of the HMTP, agreed upon by all governments but not yet implemented, was the establishment of a health human resource unit within each Ministry/Department of Health.

The FYPs contain statements of targets to be achieved, for example, “increase nurses to meet target of one nurse for five patient beds” (Sixth FYP) or “Award BSc degree to nurses” (Seventh FYP). However, the NHRD issues are not analysed for feasibility of implementation nor in terms of need versus availability of resources. These policies are not followed by action plans, a subsequent essential step in policy implementation (Cooksey & Krieg, 1996; Goggin, 1987; Janis, 1992; Sabatier & Mazmanian, 1979; Walker, 1994; WHO, 1985). The lack of action plans impedes implementation. The views of key stakeholders converged on there not being an action plan for nursing. In comparison, the WHO study (O’Brien-Pallas & Hirschfeld et al., 1997) reported that 38% of the respondent countries had a written action plan for nursing. The developed countries reported fewer written action plans for nursing but they indicated a more integrated approach to planning. Many of these countries such as Sweden, the United Kingdom, and the United States were currently monitoring the progress of the impact of previous activities to strengthen nursing practice, education, research, and policy. Fifty percent of South-East Asian countries had a written national

plan for nursing with a focus on improving delivery of services in the country. In a number of these countries, educational programmes had been initiated to increase the number of caregivers and improve quality of services (O'Brien-Pallas & Hirschfeld et al., 1997).

The Ministry of Health in the federal government of Pakistan is responsible for health policy and senior government officials from the provinces have input. Implementation of the policies, however, is primarily the responsibility of the less senior provincial government officials. Responsibility for implementation is with officials in the Department of Health at the provincial and local levels. For example, the Director-General Nursing and Director-General Health at the provincial level and medical superintendents and district health officers at the local level are responsible for implementing policy. The plans may not be received by many of these officials due to a lack of coordination among the federal, provincial, and local levels. Among the stakeholders, nursing personnel at all levels and government officials at the local level identified that key documents such as the FYPs are not readily accessible. Even if the information is transmitted, many of those responsible for implementation may not have the resources, expertise and/or financial or political clout required for implementation. The key stakeholders in this study identified clearly the role of pressure groups and political instability in influencing implementation decisions. The key stakeholders identified other factors that impede implementation to be: a lack of interest in nursing issues, presence of unrealistic plans, absence of follow up, lack of involvement of



grassroots level, health not being a fiscal priority, policies regarding nursing being made by non-nurses, general apathy among the people, and deteriorating conditions of society.

Problems with implementation occur when there is a top-down approach and when token input is sought from some of the health professionals (as perceived by nursing personnel in the study), but their input is not incorporated in the design and implementation of policies. Green (1995) advocates that broad-based ownership of the plan is essential, with full participation in the process by health professionals and the community. Such an approach would also encourage decentralization. However, some planning functions such as: ensuring that national policy guidelines in technical areas are incorporated in local action plans; maximizing resources available to a health sector; and overall national health human resource planning, should remain at the central level (Sabatier, 1990). As reported by Cornia (1997), there is no participation in planning and execution of social sector activities from community, districts, and local levels for whom the change is intended.

The nursing content in the FYPs and the HMTP, and the establishment of senior positions for nursing in the government structure (e.g., position of Nursing Advisor in the Ministry of Health and the office of Director of Nursing, provincial level) in Sindh are indications that the governments are cognizant of the nursing role in health services delivery. Nursing personnel at all levels identified the need for greater involvement by nurses in the planning-implementation process. They are in an entangled web of factors, including having minimal input in planning and policy formulation, feeling powerless, having inadequate knowledge and skill in HHRD, not being familiar with the planning

and implementation processes, and not being able to make full utilization of available resources. The lower level of education attained by nursing personnel in comparison with government officials and the fact that nursing personnel are predominantly female and operating in a male-dominant system may be factors contributing to their involvement in the planning-implementation process.

Pakistan has not followed the rational planning process recommended in the literature. A planning process follows the steps of information gathering and analysis; policy formulation; plan design; plan implementation; and evaluation. All these are functionally linked. In several countries, gaps occur between plan design and implementation (Green, 1995; Radford, 1980). The findings of this study highlight the planning-implementation gap and are indicative of deficiencies in policy design, inadequate political support, and resource constraints which include inadequate current financial outlays, inability to reallocate money, and inadequate resources to expand staffing (Cooksey & Krieg, 1996). Structural reform is needed to encourage comprehensive planning that would include implementation. Green (1995) argues that political stability is needed, both within the country and external to the country for effective implementation of policies/plans. The politically unstable situation in Pakistan makes implementation difficult.

### **Supply-Requirement Imbalance**

The theme, supply-requirement imbalance, includes the issues relating to supply and requirements, number of sanctioned posts for nurses, utilization of nurses,

maldistribution of nurses, and labour substitution (use of student nurses in lieu of qualified nurses in the delivery of services).

The fact that requirements for nursing personnel outweighing the available supply of nurses has been consistently acknowledged in the FYPs. Actions, for increasing the supply of adequately prepared nurses, such as increasing output and delinking services and education, have been contained in a number of the FYPs. In Sindh, actions have been taken to increase the supply of nurses, for example, establishment of schools of nursing in the rural areas. However, a shortage of nurses and a surplus of doctors was perceived by all stakeholders to be prevalent throughout Sindh and the rest of the country. Global trends indicate a general shortage of nursing personnel in the majority of WHO member countries. There were few countries where supply equalled demand. Shortages were generally related to factors such as poor utilization patterns, shortages in specific clinical areas, uneven distribution of nurses between rural and urban areas and between community and hospital care, supply-demand imbalances, inappropriate nurse-bed ratios, and poor status of nurses (O'Brien-Pallas & Hirschfeld et al., 1997). In Pakistan, the factors identified by key stakeholders as contributing to shortages were similar to the factors reported in the WHO study.

The shortage of nurses in the public sector in Pakistan is embedded in the socio-cultural, economic, and political milieu of the country as reflected in the reasons given by the stakeholders for the shortage of nurses. These reasons included: an inadequate number of sanctioned posts thus forcing the nurses into the private sector, a limited applicant pool, lack of security in students' hostels and places of work, political unrest,

and political pressures on the process of transfers and postings of nursing personnel. The findings revealed that the applicant pool was adversely affected by factors such as low status of women, low female literacy rate, family and cultural restriction, and inadequate understanding of work of nurses. A limited applicant pool resulted in vacancies in student seats which further exacerbated the shortage. These factors also impacted on the deployment of nurses to rural areas and other areas of need.

The situation regarding an inadequate number of sanctioned posts is complex and not well understood by the key stakeholders. An inadequate number of positions in the public sector results in the graduates of schools of nursing in the public sector seeking employment in the private sector. The governments bear the costs of educating the students but lose the benefits. The findings revealed that the real status of sanctioned positions (existing number, filled, vacant, and filled by non-nursing personnel) is not known by nursing leaders or others. The lack of a reliable data base makes it difficult for strong arguments to be made for an increase in the number of positions.

Nursing respondents discussed the request for additional posts. The process whereby additional posts for nurses in hospitals are created is complex and nursing personnel indicated that they are not involved in this process. The request for the creation of posts is initiated by a medical superintendent. The request is then sent to the Director-General Health, who forwards it to Planning Division of the province. The Planning Division receives requests from all health units, reviews these requests, and sends the approved requests to the Finance Division which scrutinizes the requests and makes necessary changes based on the available budget. These requests are then sent to the

federal Planning Chief who constitutes work groups to deliberate these requests. The working groups present their report in a restricted number of pages to the Planning Chief who accumulates all working group reports and summarizes them. After receiving approval from several levels, including Finance, Establishment and The Assembly, the summaries are incorporated in FYPs. The process includes the allocation of development funds at the federal level for the first year of the commitments and recurrent budget funds at the provincial level for the following years.

The rationale for the need for increased nursing positions may not be presented. If the government officials making the decisions perceive nurses to have low status and utility, budgets for these positions will be lost among other competing demands during the long process of approval. The fact that the number of nursing positions has increased minimally since the establishment of institutions is an indication of the low priority given to nursing despite efforts of some government officials at the local level. For example, a key stakeholder at local level remarked that a request for the creation of additional posts has been submitted for the past 10 years. Each year the answer was that the request could not be filled due to budgetary constraints, and that the request would be reviewed the next year. However, no new positions have been created.

The impact of poor quality of care, a theme that emerged from the data, may be associated with shortage of nurses. This situation has not been fully assessed, especially the impact on the costs of services, morbidity and mortality, or on the quality of life of the patient population. No research has been done in Pakistan on the relationship between quantity and quality of health care providers and health of the population. What is known

is that Pakistan has one of the lowest nurse to patient ratios. Even with this knowledge however, officials would have to possess the political will and finances to rectify the situation. The marked deficiencies of the existing health information systems contribute to the situation. There is no reliable information or data to make informed decisions on health human resources in general and nursing human resources in particular.

The shortage of nurses has been acknowledged by the government officials and in the FYPs, and a few ad hoc actions have been taken (e.g., to double the enrolment in the schools of nursing). However, none of these strategies have been thought through in relation to available resources and impact. This may be a reflection of a lack of political will, a sense of powerlessness to affect change, lack of understanding regarding HHRD, or even a reflection of the general apathy of society as commented upon by one of the key stakeholders. It may also be seen as policy makers wanting to be seen as addressing problem areas.

The impact of a shortage of nurses on working conditions, morale, and motivation of nurses are well documented in the literature (Carlson & Cowart, 1988; McCloskey, 1990; McKenna; 1995; Meltz, 1988). Research has shown that a shortage of nurses results in role overlap between the physician service and the nurse service (O'Brien-Pallas & Hirschfeld et al., 1997). In Pakistan, the surplus of doctors has resulted in the doctors performing many tasks ordinarily performed by nurses, such as taking blood pressure measurements and dressing wounds. That action leads to nurses being undervalued and low priority being given to creating additional sanctioned posts for nurses. The shortage of nurses leads to a substitution of student labour for that of

qualified nurses; that action contributes to poor quality education, which results in inadequately prepared graduates, and the justification for physicians performing what would normally be nursing tasks. This circular process illustrates the dynamic nature of the relationship among the components of planning, production, and management.

The Pakistan Nursing Council (PNC) has established a standard for determining the requirement for nurses. That standard is the international standard based on WHO guidelines of three nurses to 10 beds. The government officials involved in planning were not aware of this standard. At the same time nursing leaders were not aware of the implications if the government decided to implement the standard. For example, are there sufficient numbers of nurses and/or will the educational capacity allow for adequate numbers of graduates. Standards are useful guidelines, but when external standards are accepted, the situation in the country needs to be analysed, standards set which are country-specific, and a plan of action developed to achieve those standards.

## **Production**

### ***Quality of Education***

The theme, quality of education, encompasses the following issues: recruitment; integration of education and service; financial resources; relevancy and implementation of the curriculum; faculty sanctioned posts; and preparation of faculty.

Since its inception, Pakistan has addressed the need to develop its nursing educational capacity. For example, establishing schools of nursing (SONs) or increasing the capacity of existing SONs have been an integral part of many of the FYPs. Concerns

with the quality of education are also reflected in those plans, for example, separating nursing education from nursing service (Sixth Five Year Plan); and the need for competent faculty and providing faculty with facilities (Seventh Five Year Plan). In the Province of Sindh, the office of Director of Nursing, established in 1991 was given overall responsibility for nursing service and nursing education in the province.

There was consensus among all the key stakeholders that improvement is needed in nursing education as the quality of basic education in nursing was unsatisfactory and not improving. Major factors identified as influencing the quality of education were: a limited applicant pool and the low quality of applicants, integration of service and education, inadequate financial resources, relevancy of the curriculum and limited implementation of the approved curriculum, and inadequate numbers and preparation of faculty. The relationship among the factors was noted by the respondents. The nursing personnel in the study stressed that with adequate resources, including operating budgets for the schools, a fully implemented curriculum, improved faculty-student ratios, and a separation of nursing services and education, improvement in the quality of education and the quality of graduates would occur.

### **Recruitment**

The issue, recruitment, addressed both the characteristics of the applicant pool and the selection of candidates in to schools of nursing. Government officials identified the applicant pool as being limited as a result of the low literacy rate in the country, especially of females and in the rural areas. In many instances, schools of nursing in the



large urban centres would have more applicants than available student seats, while schools in the rural areas failed to meet their quotas. The limited number of young women from rural areas entering nursing was seen also as having implications for retaining graduates in rural areas. The women who are from a rural area have family ties which reinforce their retention in the area. The nursing personnel were optimistic regarding recruitment of local applicants to schools of nursing as a means of increasing retention of graduate nurses in the rural areas. Some nursing personnel reported that more young women from rural areas were being admitted to schools of nursing. The establishment of new SONs in the rural areas increased accessibility of these women to schools of nursing.

Another socio-cultural factor identified as influencing admissions in nursing schools is the nature of the work of nurses which requires nurses to have contact with non-family males such as doctors and other health care workers, and patients and their relatives. Such contact is contrary to the socio-cultural norms in many sectors of Pakistani society which govern the behaviour of women. Studies have shown that this aspect of nursing contributes to nursing's low social status (Amarsi & Holzemer, 1990; French, Watters, & Matthews, 1994). There is a contradiction in Pakistan in that female doctors are free to transgress these social taboos, but the high social status of medicine has a buffering effect (ADB, 1992; Siddiqui, 1995; World Bank, 1993c). The nature of nursing and its low social status combine to make it a less attractive occupational choice for young women and their families. In Pakistan, families play a decisive role in occupational choices of women (French, Watters, & Matthews, 1994).

Students are paid stipends in the 3 year diploma programmes located in schools of nursing; the stipend is equivalent to the beginning salary of a staff nurse in the public sector. The provision of stipends was seen as having both positive and negative impacts on recruitment. The availability of stipends facilitated the recruitment of applicants to nursing programmes, especially from lower income families. Stipends also contributed to the recruitment of candidates more interested in the economic incentives than the choice of nursing as a profession, and was seen by some respondents as reinforcing the low social status of nursing. The provision of stipends to students as a recognition of their contribution to service is not unique to Pakistan. It was part of the apprenticeship model of nursing education in Canada prior to the movement of nursing education into educational institutions (Kerr & MacPhail, 1996).

The educational capacity, that is, the number of student seats, is controlled centrally by the provinces and is tied to the number of stipends available, but planning decisions at the federal level influences actions taken by the provincial governments. Recently, Sindh in response to a directive from the federal level to all the provinces, doubled enrolment of students in the basic nursing educational programme by establishing additional schools of nursing in smaller centres. Government officials at both the federal and provincial levels were generally supportive of the action taken to address the shortage of nurses in that the hospitals would have more students to work on the wards. The nursing personnel were of the opinion that any increase in student seats should take place only if there is a corresponding increase in the number of faculty and

an increase in the number of positions for staff nurses so that new graduates will be employed.

Political interference was identified as another factor impacting negatively on the admission process and the quality of the students being admitted. In some instances, admissions were not based on merit, but were the result of political pressures and resulted in less qualified applicants being admitted. Government officials recommended that consideration should be given to raising the minimum entrance criteria from senior matriculation to intermediate with science. This may raise the standard of nursing education but it may reduce the size of the applicant pool.

The academic qualification of the present applicants was associated with a deteriorating standard of general education. Urdu is the national language of the country and English is the language of instruction only at post-secondary educational institutions, including schools of nursing. The students entering nursing are from diverse backgrounds, with English being their third or fourth language and many students enter with little or no proficiency in English. English as a subject is included in the nursing curriculum and most textbooks and other learning resources are in English. However, in many schools of nursing both the students and faculty have limited ability in English and this is a major obstacle to learning.

Historically, admissions to schools of nursing were under the control of the medical superintendents of the hospitals in which the schools were located. Recently, a policy was introduced in the Province of Sindh that centralizes admission to all schools of nursing in the province under the office of the Director of Nursing, Sindh. The policy has

the potential of ensuring that qualified applicants will be admitted on merit and quotas will be met by distributing the supply of applicants within the system. However, the creation of one central authority could make the admission process vulnerable to political pressure from higher officials, external groups, and individuals. This change in policy demonstrates that with policies which have no structural change, implications can be formulated and implemented by provinces if the political will exists.

### **Integration of Service and Education**

The nursing respondents identified that one of the major impacts on quality of education was the use of nursing students to provide service. The shortage of nursing personnel impacts on the production of nurses as the service needs take priority over education. The students are considered to be an integral member of the nursing service and both the students and nurses are under the control of the nursing superintendent or chief nursing superintendent, who reports to the medical superintendent of the hospital. The Garsonnin (1994) study provided evidence that nursing students are not supervised in the clinical area. The practice of unsupervised students poses a risk for patients, as well as being a comment on the state of nursing education. Historically, in many parts of the world, including the industrialized countries, nursing education was developed within hospital training schools (Baumgart & Larsen, 1992; Kerr & MacPhail, 1996). This practise, therefore, is not unique to Pakistan. In the apprentice model, considerable teaching-learning took place in the clinical setting, where the students were closely supervised (Hughes et al., 1991). However, in Pakistan that essential element of

supervision of students in the clinical area was identified as being absent; this finding was supported by Garsonnin (1994).

The separation of service and education in nursing has been a global phenomenon, and in the United States and Canada the transfer of responsibility for diploma programmes from hospitals to educational institutions took place in the 1960s and 1970s (Kerr & MacPhail, 1996). In the United Kingdom, the transfer is being implemented in 1990s as part of Project 2000. Kerr and MacPhail (1996) identified that achieving the transfer of nursing education from hospitals to educational institutions required “good communication, interaction, openness, objectivity, readiness to examine beliefs, attitudes and values, and willingness to accept that compromises that are needed to move toward collaboration and joint accountability for practise, education and research” (p. 347). The United Kingdom experience is demonstrating that such a transfer is difficult. The findings indicate that in Pakistan, awareness of the benefits of decreasing reliance on students for the provision of nursing services, the concept of complete separation of education and service, has not permeated beyond the nursing leaders. This is an interesting finding given that separation of education and service was a target in the Sixth Five Year Plan, 1983-1988. The inclusion of this target may be a reflection of a planning process which does not take into consideration the feasibility of implementation. Considerable planning and work with the non-nursing government officials will be needed if changes in nursing education are to be accomplished.

### **Financial Resources**

A major factor affecting the quality of education that was identified by the nursing personnel, was the lack of a separate budget for nursing education. Apart from salaries of faculty and staff, no budgets are allocated for the operation of the schools. A government official confirmed that the provincial government does not designate a separate budget for operational costs for nursing; designated funds would be available to nursing only in instances in which problems were identified in the infrastructure such as repair of a building. Even when schools of nursing receive equipment that has been donated by an outside agency, the equipment may not be used as operational costs are not provided. The quality of nursing education is negatively affected as a result of insufficient operating funds. Other than monies flowing to the schools through the hospitals, there is no other source of revenue. Tuition fees are not charged for nursing education in the public sector.

### **Curriculum**

The government officials' and nursing leaders' perceptions diverged in their assessment of the curriculum in the basic nursing educational programmes. Government officials felt that curriculum was based on the Western model and was not relevant to the needs of the country. Nursing personnel felt that the curriculum was relevant to the needs of the country, but was not being implemented fully. The current curriculum was revised in 1990 with assistance from a donor agency, including a consultant who worked with senior nurses for more than 2 years. The revision of the curriculum was well supported

by the Ministry/Departments of Health at both the federal and provincial levels. The government officials who participated in this endeavour have left their positions and current officials may not have the information on the revised curriculum. Curricula have to be relevant and assessed in light of the health and nursing needs of a country. Formal accreditation systems, such as the one in Canada, use the criteria of relevancy as a key indicator in evaluating a curriculum (French, 1982 ).

The nursing personnel cited limited implementation of the approved curriculum for basic schools of nursing as being a factor contributing to the poor quality of education. Although the curriculum was approved, many of the schools do not have adequate resources for its implementation (e.g., teachers prepared in community health nursing, learning resources, transport). This issue is related to the lack of financial resources, the preparation of faculty, and the number of sanctioned positions for faculty. It also illustrates the limitations of the regulatory body, the Pakistan Nursing Council, which has responsibility for monitoring implementation and taking corrective action as well as approving the curriculum. In addition, it demonstrates the need for ongoing monitoring and evaluation of schools of nursing by the office of the Director of Nursing, Sindh. Both the PNC and the office of the Director of Nursing, Sindh were identified by Morgan (1993) as being in need of strengthening.

### **Faculty Complement**

The perceptions of a majority of the nursing personnel converged with respect to the quantity of faculty in the schools of nursing in the province, that is, the faculty-student

ratio was inadequate. Government officials had limited knowledge of the quality of faculty. The nursing personnel discussed quality of faculty with respect to preparation of the teachers, workloads of these teachers, number of sanctioned positions of teachers, and teacher-student ratios. There was consensus that faculty were inadequately prepared for their roles and the teaching loads were so heavy that the teachers were not able to perform effectively. As noted by one of the nursing respondents, a teacher is expected to teach all the courses in the programme to students in all three years of the diploma programme. The total number of students may be small (sometimes less than 100 in the entire programme), but the workload and the expectation that one teacher would have adequate preparation in all areas of the curriculum to teach all the courses are unrealistic.

A factor identified primarily by nursing personnel at the local level was that there were sufficient numbers of nurses with academic qualification, but that these individuals were working as staff nurses in various institutions because they were not promoted to positions of teachers. One of the reasons for this situation was delay in departmental, provincial, and federal promotions which are dependent on Service Commissions. The Service Commissions appeared to have been delayed due to political instability and changes in the governments. The delay in promotions is not unique to Pakistan as Bangladesh in a study reported that there had been no promotions in the last 15 years (O'Brien-Pallas & Hirschfeld et al., 1997).

Another factor identified as affecting the quality of teaching in schools of nursing was the very limited number of sanctioned positions for nursing faculty in relation to the requirements. The nursing respondents at all levels indicated that faculty-student ratios



varied across institutions with similar students enrolment; the schools of nursing in rural areas had more inadequate ratios compared to those in urban areas. However, the majority of stakeholders felt that the schools of nursing lacked competent faculty irrespective of the faculty-student ratio. The non-availability of accurate data on the number of sanctioned posts in both education and service, the extent to which they are filled and the qualifications of those in both education and service places the nursing personnel in a difficult position to effect change.

The quality of the teaching in schools of nursing may be associated with a deterioration in general education and a deterioration of standards in basic nursing education. This is compounded by weaknesses in the post-basic programmes offered at four Colleges of Nursing to prepare nurses for roles in nursing education. Although the educational programmes at several of the four Colleges of Nursing have improved, the need to revise the curriculum to enhance its relevancy and improve the quality of teaching has been identified by nursing and the governments as a priority in a CIDA-funded project (CIDA, 1994). Until recently, the Province of Sindh has been dependent upon the federal Colleges of Nursing to prepare its future teachers in nursing. A provincial College of Nursing is being established at Jamshoro as part of a larger project funded through the World Bank (World Bank, 1992). That programme includes preparation in community health nursing for future teachers. In addition, the province has been supportive of the development of a post-diploma BScN programme in one of the Colleges of Nursing, a component of the CIDA developmental project (CIDA, 1994) and of nurses from Sindh receiving higher education through the BScN programme at the Aga Khan

University (CIDA, 1994; World Bank, 1992). These actions are an indication that the Government of Sindh, with support from external donors, is placing value on the need to improve the quality of nursing education through the provision of improvements in teacher preparation and expansion of the post-basic educational capacity.

## **Management**

### **Working Conditions**

The theme, working conditions, encompasses the issues of adequacy of resources, shortage of adequate numbers of prepared nurses, respect and recognition, degree of satisfaction, salary and benefits, and quality of care.

There was convergence among the key stakeholders that the working environment of nurses was poor. Factors identified as affecting the work environment and job satisfaction included those in the immediate work environment, as well as factors in the socio-cultural, political, and administrative environments. Factors cited by both nursing personnel and government officials at all levels were: lack of resources (finances, supplies, and equipment); lack of respect, low image, and low status of nursing; and political instability, political pressures, interference, and insecurity (personal safety). Other factors cited by some government officials and nursing personnel were: long working hours, excessive workloads due to a shortage of nurses, no opportunities for further growth, lack of incentives and inadequate remuneration, inadequate benefits such as accommodation and transport, the working environment being male dominated, and lack of awareness by the general public of nurses' work. Additional factors identified

only by nursing personnel were: increased non-nursing and clerical duties, lack of team work, and lack of recognition for nurses' work.

The working environment was described as lacking basic supplies such as water, cleaning material, linen, and dressing supplies. The nursing personnel at the local level reported that nurses were expected to function within a most difficult and constraining environment. The key stakeholders identified the performance of non-nursing tasks such as the collection of bed fees, being in charge of linen, and keeping records of equipment and supplies as preventing nurses from providing patient care.

Much has been written in the Western context (O'Brien-Pallas & Baumann, 1992; O'Brien-Pallas, Baumann, & Villeneuve, 1994) about factors necessary for quality work environments for nursing. Many of the factors identified by the respondents as affecting working environments and job satisfaction are reflective of problems experienced by nursing globally. In most regions of the world, the working conditions of nursing are associated with a low status and that status is associated with the status of women (WHO, 1997). Nursing in Pakistan is no exception to that global phenomenon.

The low status of nursing in Pakistan is reflected in the limited or no involvement of nursing personnel in decision-making processes which impact on working conditions, as well as other dimensions of nursing human resource development. This situation is not unique to Pakistan.

“With so few nurses in key positions to influence policies regarding the employment of nurses, it is little wonder that, globally, nurses endure poor working and living conditions” (WHO, 1997, p. 20).

A unique factor not identified in the literature, but prevalent in Pakistan, was the political influence on the operational aspects of nurses' work. Findings indicate that political influences not only impact on what nurses will do, but which patients will receive care and where nurses will work. The structure of health services in Pakistan is very centralized. A small group of federal and provincial government officials make decisions regarding the allocation of personnel to institutions. Although Canada and the United Kingdom have government-funded health care, their health care delivery system is decentralized as compared to Pakistan, and political influence is not present at the operational level.

Two indicators of working condition cited in the literature (O'Brien-Pallas & Hirschfeld et al., 1997) are increase in salaries and/or benefits and improvement in career opportunities. In Pakistan, nursing personnel are members of the public service system and the salary and benefits for a grade are applied equally across cadres. This system is advantageous in that there is less room for discrimination across cadres. The majority of nurses are not in the officer classes, that is, BSP-17 and above. Senior nurses are in the officer category and some are at the very top of the scale (Appendix B). As members of the public service, nurses receive annual or periodic increments as provided for the entire public service in relation to job classification regardless of quality of performance. There is an annual increment amount fixed for each grade until the ceiling is reached for that particular grade. Although a number of respondents described salaries and benefits as inadequate, the situation is not nursing specific other than in relation to the starting grade for nursing personnel. With respect to career opportunities, the nursing respondents

perceived limited career opportunities as nurses in the public sector are promoted based on seniority in years of service and not through merit or additional educational preparation. This negatively impacts on the morale and motivation of workers. These findings are not unique to Pakistan as several WHO member states have similar situations in relation to salaries/benefits and career ladder (O'Brien-Pallas & Hirschfeld et al., 1997).

In the countries of North and South, another factor in the workplace perceived by nursing personnel as affecting working conditions is discrimination on the basis of gender. In the North, nurses see discrimination based on gender of the worker as being manifested in wage discrimination against women, job opportunity discrimination against men, and sexual harassment in the workplace (Ellis & Hartley, 1998). In Pakistan, the nursing respondents perceived sexual discrimination in the form of sexual harassment and in the delegation of power, authority, and decision making to men. In Pakistan, the societal norm is for men to have power, authority, and decision making in general and over women in particular (Khan & Zia, 1995; Zia, 1994). The societal role expectations of men and women are being played out in the work environment of nurses. Women living or working outside the protection of their family are vulnerable targets for sexual harassment. Male health care workers, by virtue of being male, not just because they have a higher education or social status, exert control over nurses (Siddiqui, 1995).

### **Similarities and Differences**

Similarities and differences were found across levels and between affiliations.

The demographic profile of the key stakeholders showed similarities among respondents with respect to age, length of service, and marital status, while differences were seen in gender between the affiliations and in education qualifications. The majority of the nursing personnel (89.5%) was female and government officials were male (93.3%). The findings demonstrated that key positions in the governments relating to health policy and decision making for health are gender specific. The issues and concerns of nursing may not be addressed adequately due to male domination in decision making and a lack of knowledge and understanding of women's issues (Attridge & Callahan, 1989).

Low priority or not addressing nursing issues could reflect the socio-cultural and political environment prevailing in the country. The differences between the nursing personnel and government officials with respect to planning may be seen as a reflection of nursing being a predominantly female occupation in a country in which women have low status. The finding that 89.5% of the nursing personnel was married is interesting in light of the commonly held belief that family constraints such as marriage leads to nurses dropping out of the work force. That belief was cited by government officials as a factor contributing to the nursing shortage.

All the government officials had obtained university degrees, whereas less than half of the nursing personnel had achieved that level of education. The government officials viewed HHRD from a broad societal perspective and had limited awareness or

understanding of the NHRD issues. At the same time, the nursing personnel had a narrow perspective of HHRD. Although they exhibited an understanding of the issues within nursing, they were focussed on the micro picture at an operational level; they lacked an understanding of the government system, its structure as well as functions, and its influence on NHRD and the relationship of NHRD to health needs, health resources, and health research in Pakistan. The narrower perspective could be associated with the limited educational background of nursing leaders and their limited exposure to the government system and involvement (or non-involvement) with external groups. Furthermore, nursing leaders identified nurses as being socialized into performing tasks, rather than acquiring conceptual and strategic skills in problem identification and decision making.

The majority of government officials lacked awareness of some of the changes occurring in nursing education, for example, curriculum revision and had limited knowledge regarding the specifics of working conditions, whereas nursing personnel were informed regarding nursing education and management of nursing personnel. The differences may be associated with the degree of involvement in nursing. The findings demonstrate that officials at the local level who have more direct contact with nursing have more knowledge and understanding of issues related to NHRD. Officials at this level are involved in implementing policies impacting on nursing that are received from the federal and provincial levels. Unfortunately, their input in policy formulation and decision making is minimal in the government's hierarchal system. Differences among nursing personnel at various levels were minimal, nurses at all levels had similar

perspectives on HHRD generally and on NHRD particularly. The similarities in perspectives among the nursing personnel is not surprising as they are involved in operational issues, and have a homogeneity of professional background.

The key findings are interesting as nursing personnel at all levels are not aware of many of the issues such as the processes involved in the development and implementation of five year plans. The senior government officials have a lack of awareness of critical issues, both environmental and professional, that face the nursing profession. However, there are many similarities between the perceptions of nursing personnel and those of government officials. For instance, both groups agree that there is a lack of resource data on which to plan and that needs assessments would provide necessary information. They both understand the overall conditions of education, as well as nursing service. This mutual understanding is a strength on which future action could be built.

### **The COHHRD Framework**

The Coordinated Health Human Resource Development (COHHRD) framework expanded by Hall (1993) was the basis for the study (WHO, 1990) (Appendix C). The COHHRD framework is a model that integrates health needs, health planning, health resources, socioeconomic planning, and health systems with the components of HHRD, that is, human resource planning, production, and management. The findings demonstrate clearly that the components of planning, production, and management are not mutually exclusive and that activity in one component is linked intimately with



activities of the other components. The findings support the interrelationship depicted in the model.

Hall (1995) identified the socio-cultural, economic, and political influences on HHRD and the findings demonstrate the impact of these influences on HHRD in general and on NHRD in particular. The schematic presentation of the COHHRD model may be enhanced if the interrelatedness among components and between HHRD and the socio-cultural and economic environment were shown more clearly. Either the arrows showing that socioeconomic planning and health planning impact on HHRD could be drawn as moving in both directions or could appear more encompassing as shown in Appendix E which focusses on the relationship between socioeconomic and health planning and HHRD.

Very few of the key stakeholders reported the need for health research for HHRD, but the literature emphasizes its importance in all dimensions of HHRD; therefore, health research was added to the framework in Appendix E. Although research is in its infancy stage in many countries, it will become increasingly essential for efficient and effective functioning of health sectors in the next millennium. Use of quantitative and qualitative data to influence policy is well documented in the literature (Baker, Costello-Nickitas, Mason, McBride, & Vance, 1993; McBride, 1987).

The variables within each component identified by Hall (1995) should remain an essential part of the framework. Planning would consist of demographic variables, number of health workers by type, major areas of activity, level of care, positions sanctioned, filled, vacant, migration, interprovincial, urban/rural, distribution, size,

capacity, productivity, staffing density, and terms of employment. Additional variables, that is, policy formulation, current planning, human resource development plan, and involvement in planning should be added.

Production variables would include number of basic and post-basic schools, annual intake and output, number of the faculty, curriculum, applicant, entrants, enrolments, and graduates. Based on the findings, additional variables, quality of education and student stipend, should be included. Management variables would include: conditions of work full time, part time, private practice, work schedules, duty rotations, staff coverage for health workers, career advancement, pre-job orientation, clear job descriptions, existence of personnel policies, procedures for staff recruitment, selection, placement, promotion, salary scales, merit increases, monetary and non-monetary incentives, staff morale, apparent job satisfaction, qualification for practice, licensure, registration, shortages/surplus of personnel, equity of distribution of personnel, staff turnover. An additional variable arising from the findings, quality of care, should be included. The suggestion by Hall (1993) of utilizing country-specific variables is useful and promotes flexibility in the use of the guidelines.

## **CHAPTER 7**

### **SUMMARY, CONCLUSIONS, AND IMPLICATIONS**

#### **Summary**

Summary and conclusions of the study are presented in this chapter. Implications of findings and directions for further research relating to nursing human resource development are discussed.

This study explored the current situation of NHRD in the Province of Sindh in Pakistan. Two main research questions were explored: (1a) What are the perceptions of key decision makers regarding planning, production, and management of NHRD?; (1b) What differences and similarities exist, if any, between decision makers at various levels and of different affiliations?; and (2) What are the issues identified regarding the current NHRD situation in relation to specific aspects of planning, production, and management of NHRD as perceived by the stakeholders? Nursing human resource development was studied from the perspectives of the three components: planning, production, and management of nursing personnel.

Issues that provided impetus to this study were: (1) a dearth of studies which focus on all components of HHRD; (2) a limited number of studies on NHRD; and (3) the lack of reliable data on all aspects of HHRD, including NHRD particularly in a

developing country such as Pakistan. In addition, no studies were found that focussed on perceptions of key stakeholders to obtain an understanding of all aspects of planning, production, and management in HHRD or NHRD, although Hall (1993) had recommended such action as an initial step in HHRD. The study of a predominately female health profession in a developing country in which women have a low social status and development of the social sector has received low priority, provided an opportunity to investigate the impact of socio-cultural, economic, and political influences on HHRD in general and NHRD in particular.

Qualitative research methods were used for this study. The methodology was selected as NHRD is a relatively unexplored phenomenon in Pakistan, and the method allowed the richness and depth of the perceptions of key decision makers to be captured through the use of semi-structured interviews focussing on the current NHRD situation. Key stakeholders were identified as government officials, nurses and non-nurses, in senior positions at the federal, provincial and local levels, and senior nurses in the regulatory body and/or professional associations at the national, provincial, and local levels.

The COHHRD model provided the framework for the study of NHRD. This COHHRD model is organized around the three components of HHRD and is recommended for use at the macro or country level (WHO, 1990). The study used Hall's (1995) expansion on this model and guidelines for conducting a situation analysis of HHRD. A policy review of the five year plans (from 1978-1998) of the country was conducted to identify issues relating to NHRD. The variables for the development of the

interview guide were selected from these issues, as well as from the variables identified by Hall (1995) as pertinent to each component.

Collection, management, and analysis of data occurred concurrently. An inductive coding technique was used. Codes were generated manually and a hierarchal alpha numerical coding scheme was developed. A total of 19 categories emerged from the codes and were clustered under each of the components; planning, production, and management. The categories were not mutually exclusive and a category was grouped under the component where it emerged as a major dimension. A total of 22 issues were identified from the categories. These issues were further collapsed into five themes, three of which related to planning, one to production, and one to management.

The findings were presented in relation to the research questions that guided the study. The findings were organized under three components of HHRD: planning, production, and management. The categories were described narratively with raw data and matrices displayed. The analysis addressed the similarities and differences in the perceptions of the key stakeholders. The findings are summarized as follows:

**1. Human Resource Planning**

Planning was identified as being hierarchal in nature, with a top-down approach and ineffective. The nature of the process by which health policies were formulated, the absence of a comprehensive plan for HHRD, and the lack of a national approach to planning was identified as contributing to limited implementation of policies. There are no reliable data bases for decision making and planning was characterized by plans to

increase the supply and add infrastructure based primarily on donor support. There was limited involvement of nursing leaders in planning; decision makers operating with limited understanding of HHRD, low priority being given to nursing, and inadequate financial resources. The result was an inadequate supply of nurses in relation to needs, and a maldistribution in favour of urban areas and tertiary care services.

## 2. *Human Resource Production*

The production of nursing personnel was reported as not being coordinated with planning of nursing personnel. The quality of nursing education was deemed to be unsatisfactory and deteriorating, although there were differences of perception between nursing personnel and government officials as to why the situation is the way it is. The revised curriculum is not being implemented fully or effectively. Cultural barriers and societal pressures have an impact on the potential applicant pool for the nursing profession. Socio-cultural, economical, and political factors affect the quality of basic education in the country which in turn impacts on the quality of professional education. The increase in number of students has not resulted in an increase in faculty to provide the education. An example of the lack of integration of planning is that qualified teachers are underemployed and are working as staff nurses due to a lack of sanctioned teaching positions in schools of nursing. Nursing education is administered by nursing service departments and hospital and service needs take precedence over students' educational or learning needs.

### 3. **Human Resource Management**

Management of nursing human resources is characterized by a poor working environment, job dissatisfaction, and inadequate salary and benefits of nursing personnel. Quality of nursing care in the hospitals is affected by the poor management of nursing personnel. Incentives are not provided to work in the rural areas. Lack of continuing education and defined career ladder affect morale and motivation.

The factors affecting job satisfaction, working conditions, and reasons for a perceived shortage of nurses are interrelated and, in some instances, overlap. Most of these factors could be summarized under socio-cultural, economic, and political factors affecting nursing human resource management.

### **Conclusions**

Findings from this study contributed to further understanding of the nursing human resource development in the Province of Sindh, Pakistan. Both the COHHRD model and Hall's (1993) expansion of that model provided a framework for the study of the planning, production, and management components of HHRD. This study confirmed the value of the suggestion by Hall (1993) that determining the perceptions of key stakeholders is an important initial step in HHRD. The study also reaffirmed the importance of interviewing key stakeholders at various levels and affiliations. Studying HHRD in Pakistan demonstrated clearly the influence of socio-cultural, economic, and political milieus on HHRD.

The variables provided the bases for the semi-structured interviews, components provide the organizational framework for data collection, data management, data analysis, and discussion of findings. The findings provided direction for an enhancement of the schematic presentation of the COHHRD model.

The current situation of nursing human resources development in Pakistan has deficiencies in areas of planning, production, and management. Although the nursing profession in Pakistan is organised and provides direction and leadership to its members, it would appear to have minimum impact on planning.

The nursing shortage is a circular process in that poor quality of education and extensive use of students for nursing service results in inadequately prepared graduates and a lack of motivation to increase the number of sanctioned posts for qualified nurses. The inadequate number of sanctioned posts results in students being used for service, and poor quality of education.

Although there were individual variations, as a group the key stakeholders, especially the nursing personnel, did not have an in-depth understanding of the policy formulation and planning process or of HHRD. NHRD was not related to the health problems and needs of the country. Changes such as a revised curriculum for basic schools of nursing have occurred, but knowledge of those changes and of difficulties nursing education is encountering are not known by government officials in decision-making positions.



## **Implications**

The findings of this study have implications for the key stakeholders in relation to health human resource development in general and nursing human resource development in Pakistan in particular. It is important to note that Pakistan is not the only country facing problems with NHRD. Globally, countries in both the North and South are struggling with efficient and effective use of nursing human resources. The social and political structures that prevail in Pakistan are unique and associated with historical, political, religious, and cultural influences.

The perceptions of key stakeholders provided information on specific qualitative aspects of the NHRD situation and raised issues and questions that provide directions for intervention. The following implications arise from the study:

- ▶ A more in-depth understanding is needed by stakeholders (e.g., nursing leaders and government officials) of the policy formulation and the planning process, if they are to influence the process. NHRD should be related to health problems, health needs, health research, and health resources. In planning, the socio-cultural, economic, and political factors need to be taken into account. Key stakeholders need to acquire the understanding of the process by which policies are formulated and planning decisions made, and could be acquired through several strategies such as production of monographs, workshops, and other continuing education. Thus, these need to be concise, direct, and marketed in a way that will appeal to the stakeholders.

- ▶ Government officials have a lack of awareness of the issues at the hospital level in nursing. The nursing profession should assist government officials to become aware of nursing issues and the value of a strong nursing service. There needs to be a focus on both data collection and synthesis, as well as effective dissemination to decision makers.
  
- ▶ The shortage of nurses and sanctioned posts, need to be examined more closely. According to the stakeholders' responses and the policy review process, the demand for nursing personnel did not seem to be realistic or have a rational basis, for example, "increase the nurses to have a target of one nurse to five beds." The need for nursing personnel need to be critically assessed for feasibility (financial, human resources, and material such as schools, equipment) and planned according to the realities of Pakistan within the socio-cultural, economic, and political milieu. For example, how realistic is the 1:5 nurse-bed ratio? How many practising staff nurses are there at present? How many would be needed? How long would it take to achieve that goal? What are short-term, intermediate, and long-term goals? One of the models mentioned in the literature such as Denton et al. (1995) and Kazanjian (1991) could be used to assist in the calculation of projected need if data sets and resources are available. The projected need would then be prioritized and phased in as to how many nurses need to be produced annually taking into consideration the applicant pool available and the attrition rates from the educational programmes and from nursing itself. The implication of planning on management and production must

be given consideration. Recruitment strategies would have to be incorporated. The possible cost of each action would need to be calculated or rough estimates provided. The governments have overall responsibility for the provision of adequate number of health human resources to provide the quality and quantity of health services needed to meet the health needs of the people. However, there has to be a close association with the professional bodies in order to provide information for clarification for decision making.

- ▶ One strategy for improving nursing education is to examine prototypes from other countries that transferred nursing education from hospitals to educational institutions. A complete separation of nursing education and service would take many years to accomplish and may not be preferable. A more immediate strategy may be to decrease the amount of time students spend in the provision of nursing service with the long-term goal being to remove them fully from nursing services. This strategy will require thorough planning involving key stakeholders and it would have to be done in a phased manner. Any action will have financial implication as decreasing involvement of students in the service area would increase pressures to create more staff nurse positions and to decrease or remove the student stipend. The counter argument that decreasing or removing the stipends would result in reduction in number of applicants, needs to be taken into consideration during planning. This intervention would require policy change, and it might be appropriate that the decrease in use of students in provision of nursing service and decrease or removal of stipends occur in a few pilot schools of

nursing to study the feasibility of formulating policy, and its impact on the number and quality of its applicant and quality of education. Lessons may be learned from schools of nursing in the private sector which use students in nursing services to a much more limited extent than in the public sector.

- ▶ The need for an assessment of curriculum for relevancy in relation to the health needs and health resources should be considered. Recently nursing leaders requested a donor agency, CIDA, to assist in developing a national examination system. The timing is appropriate to assess the curriculum in light of the plans to develop the national examination system.
- ▶ The efficient and effective use of nursing human resources in terms of quantity and quality is an issue. Career ladders that recognize both education and experience need to be implemented.
- ▶ The nursing profession in Pakistan needs to explore strategies that would maximize its impact on all areas of NHRD. The infrastructure already exists in the form of a regulatory body and the professional association. The PNC has been given the legal authority and a clear mandate with respect to nursing education and standards of practice (French, 1993; Pakistan Nursing Council [PNC], 1973). The PNC needs to enhance its credibility and capacity if it is to persuade the government to take the necessary action to improve nursing education and practice in the country. This is congruent with other countries whose nursing regulatory bodies and professional associations have demonstrated their

effectiveness in improving the standards of nursing education and practise and influencing public policy (Baumgart & Larsen, 1992).

The role of donor agencies in Pakistan is well documented. There are several agencies working in the country who if approached with realistic goals would assist in HHRD in general and NHRD in particular. The nursing leaders in the country will have to take the leading role in availing these resources and provide leadership to maximize the development of nursing human resources in the country.

The Pakistan Nursing Council, the professional associations, and individual nurses in senior positions, need to review their goals and become politically active in lobbying the provincial and federal government. In addition to the political skills such as lobbying, nursing leaders would need expertise in management and leadership. French (1993) advises that the nursing organizations in Pakistan need to have a mandate of political advocacy and policy participation, as political action is essential to influence government policy and achieve the profession's goals.

The regulatory body, the PNC, in consultation with nursing superintendents and directorates of nursing need to develop realistic standards for nursing education and strategies for implementation, monitoring, and evaluations.

Presthus (1992) argues that political activism and effectiveness require resources that can be categorized as socio-economic (budget, access to policy makers, legal authority, organizational cohesiveness) and psycho-political (political efficacy,

prestige of the group, commitment of members, expertise). At present, the PNC lacks many of these resources necessary for its effective functioning. It will have to build expertise, credibility, and financial resources to be effective in policy advocacy or policy participation. The regulatory body (PNC) and the professional body (PNF) would need to work together to address the NHRD issues.

Many issues are embedded in the socioeconomic environment and administrative structure. However, further research will provide stronger data bases to assist decision makers to make more informed choices.

### **Directions for Further Research**

1. Research studies using Hall's (1993) guidelines should be conducted in other countries for a comparison of findings across countries and to further strengthen the framework.
2. Within Pakistan, investigation on planning should include:
  - ▶ In-depth studies of nursing human resource planning, including the relationship of supply-demand-requirement-need of nursing human resources, health planning process, and policy formulation process.
  - ▶ Development of reliable data bases on different cadres of health care providers and relate that to appropriate research to determine health needs of the population and on health systems for delivery of health care. These research studies would assist decision makers and policy makers to make

informed decisions regarding HHRD, including NHRD. A component of this research would also be to explore how wide the information collected is disseminated and the accessibility of data bases to the health professionals and researchers.

- ▶ Development of standards for the nurse-patient ratios (according to the acuity), nurse-population ratios, faculty-student ratios set according to the needs of the country and not based solely on international standards.

3. Investigation on production should include:

- ▶ Assessment of the nursing curriculum for relevance and identification of resources needed for its implementation; degree to which the present curriculum is implemented and factors contributing to the current status of implementation.
- ▶ Investigation of the role of stipend on quality of applicants and quality of education.
- ▶ Descriptive studies of the applicant pool and characteristics of applicants.
- ▶ Follow-up study of graduates.

4. Investigations on management should include:

- ▶ Studies of the working conditions of nurses focussing on all levels of nursing in the institutions. The research would provide factual information on working conditions of nurses and factors influencing the work environment.

- ▶ Evaluation of models in which the “ideal” number of sanctioned positions are in place and the impact on quality of care and quality of education assessed.
- ▶ Surveys to obtain factual information on the number of positions filled, occupied by whom, unoccupied, etc.
- ▶ Studies of the issue of nurses working (or not working) in the rural areas where the majority of population resides.
- ▶ Studies to identify factors influencing recruitment and retention into nursing service positions in the public sector.
- ▶ Studies on the distribution and utilization of nursing personnel at various levels of care and in rural and urban areas.
- ▶ Exploration of community health nurses (RNs) in the health care system; and of their role in relation to the LHV's who are working in the community.



## REFERENCES

Abdellah, F. G., & Levine, E. (1994). Preparing nursing research for the 21<sup>st</sup> century: Evolution, methodologies, and challenges. New York: Springer Publishing Company.

Abella, M. I. (1997). Sending workers abroad. Geneva, Switzerland: International Labour Office.

ACTS, Inc. (1990). Pakistan health manpower and training plan project: Final report. Islamabad: Ministry of Health.

Alam Zaib, F. (1993). Health and nursing situation in Pakistan. Development of Women Health Professionals (DWHP). Report of the workshop proceedings, December 4-7, 1993, Bhurban, Pakistan. Ministry of Health, Government of Pakistan in collaboration with Canadian International Development Agency (CIDA).

Allen, D. (1985). Nursing research and social control: Alternative models of science that emphasize understanding and emancipation. Image: The Journal of Nursing Scholarship, 17, 58-64.

Amarsi, Y., French, S. E., Herberg, P., & Baumann, A. (1996, June). Predictive models of health human resources planning: Relevancy and applicability in Pakistan. Paper presented at the International Conference on Management and Business, Lahore University of Management Sciences, Pakistan.

Amarsi, Y., & Holzemer, W. L. (1990). Nursing at The Aga Khan University Medical Centre, Karachi. Unpublished report. Karachi, Pakistan: The Aga Khan University Medical Centre.

Asian Development Bank (ADB). (1992, November). Appraisal of the health care development project in Pakistan. Islamabad, Pakistan: Author.

Attridge, C., & Callahan, M. (1989). Women in women's work: Nurses, stress, and power. Recent Advances in Nursing, 25, 41-69.

Bacchus, M. K. (1991). Human resource development in a post-apartheid South Africa. report. London: Commonwealth Secretariat.

Baker, B. A., Costella-Nickitas, D. M., Mason, D. J., McBride, A. B., & Vance, C. (1993). Feminist perspective on policy and politics. In D. J. Mason, S. W. Talbott, & H. J. Leavitt (Eds.), Policy and politics for nurses: Action and change in the workplace, government, organizations, and community (2nd ed.). Philadelphia: W. B. Saunders.

Bankowski, Z., & Mejia, A. (Eds.). (1987). Health manpower out of balance: Conflicts and prospects. Geneva: CIOMS.

Banuri, T. (1997). Just adjustment and just development. In T. Banuri, S. R. Khan, & M. Mahmood (Eds.), Just development (pp. 3-15). Karachi: Oxford University Press.

Banuri, T., Kemal, A. R., & Mumtaz, K. (1997). Human resource development. In T. Banuri, S. R. Khan, & M. Mahmood (Eds.), Just development (pp. 45-60). Karachi: Oxford University Press.

Baumann, A. (1997, June 18). Global issues in health, labour, and social policy. Paper presented at the International Council of Nurses Congress, Vancouver, BC.

Baumann, A., & O'Brien-Pallas, L. (1993). Nurses' worklife: Researching the quality. The Canadian Nurse, 89(1), 40-41.

Baumgart, A., & Larsen, J. (1992). Canadian nursing faces the future (2<sup>nd</sup> ed.). Toronto: C. V. Mosby Company.

Berger, P. L., & Luckmann, T. (1967). The social construction of reality: A treatise in the sociology of knowledge. Garden City, New York: Doubleday.

Bhatia, B. M. (1990). Pakistan's economic development, 1947-1990. Lahore, Pakistan: Vanguard Books Ltd.

Bierstedt, R. (1981). Introduction. In J. Willer (Ed.), The social determination of knowledge (pp. 1-3). Englewood Cliffs, NJ: Prentice-Hall.

Birch, S., Lavis, J., Markham, B., Woodward, C., & O'Brien-Pallas, L. (1994). Nursing requirements for Ontario over the next twenty years: Development and application of estimation methods (CHEPA Working Paper Series No. 94-13). Hamilton, Ontario, Canada: McMaster University, Centre for Health Economics and Policy Analysis (CHEPA).

- Bjorkman, J. (1986). Health policies and human capital: The development of Pakistan. The Pakistan Development Review, 25(3), 353-390.
- Black, J. K. (1991). Development of theory and practice. San Francisco, CA: Westview Press.
- Boulding, K. E. (1967). The boundaries of social policy. Social Work, 12, 3-11.
- Brihaye, A. (1994). Nurses' pay: A vital factor in health care. Geneva: International Labour Office.
- Buchan, J. (1994). Nursing shortages and human resource planning. International Journal for Nursing Studies, 31(5), 460-470.
- Buchan, J., & Ball, J. (1991). Caring costs: Nursing costs and benefits. Brighton: Institute of Manpower Studies.
- Burns, N., & Grove, S. K. (1993). The practice of nursing research: Conduct, critique, and utilization (2nd ed.). Philadelphia: W. B. Saunders Company.
- Canadian International Development Agency (CIDA). (1987). To benefit a better world. Ottawa: Author.
- Canadian International Development Agency (CIDA). (1995). From plan to action. CIDA's women in development programme in Pakistan. Islamabad: Women's Development Fund, Pakistan.
- Canadian Nurses' Association (CNA). (1997). The future supply of registered nurses in Canada: A discussion paper. Ottawa: Author.
- Carlson, S. M., & Cowart, M. E. (1988). Shifts in supply and demand for nursing and other health care personnel in the 1980s: A review and evaluation of the literature. Tallahassee: Florida State University, Institute on Aging.
- Centre for Health Economics and Policy Analysis (CHEPA). (1995). Estimating nursing requirements for the future as an input to human resource policies (Policy Research Briefing Report, March 28, 1995). Hamilton, Ontario, Canada: McMaster University, CHEPA.
- Charles, C., Schalm, C., & Semradek, J. (1994). Involving stakeholders in health services research: Developing Alberta's resident classification system for long-term care facilities. International Journal of Health Services, 24(4), 749-761.

Combs, A. W., Blume, R. A., Newman, A. J., & Wass, H. L. (1974). The professional education of teachers. Boston: Allyn & Bacon.

Cooksey, J., & Krieg, R. (1996). Metropolitan health policy development: Barriers to implementation. Journal of Public Health Policy, 17(3), 261-274.

Comia, G. A. (1997). Accelerating human development in Pakistan. In T. J. Banuri, S. R. Khan, & M. Mahmood (Eds.), Just development (chapter 6, pp. 120-149). Karachi: Oxford University Press.

Cowart, M. E., & Serow, W. J. (Eds.). (1992). Nurses in the workplace. Newbury Park, CA: Sage Publications.

Creswell, J. W. (1994). Research design: Qualitative and quantitative approaches. Thousand Oaks, CA: Sage Publications.

Delvoie, L. A. (1993). Development of Women Health Professionals. Inaugural address, workshop on Development of Women Health Professionals, December 4-7, 1993, Bhurban, Pakistan. Ministry of Health, Government of Pakistan in collaboration with Canadian International Development Agency (CIDA).

Denton, F., Gafni, A., & Spencer, B. (1993). The SHARP computer system: A tool for resource planning in the health care sector. In M. Malek, J. Rasquinha, & P. Vacani (Eds.), Strategic issues in health care management. Toronto, Canada: John Wiley & Sons.

Denton, F. T., Gafni, A., & Spencer, B. G. (1995). The SHARP way to plan health care services: A description of the system and some illustrative applications in nursing human resource planning. Socio-Economic Planning & Science, 29, 125-137.

Denton, F., Gafni, A., & Spencer, B. G. (1997). The impart of nurse practitioners on the Ontario health care system: A proposed assessment. Grant proposal. Hamilton, Ontario, Canada: McMaster University, Centre for Health Economics and Policy Analysis (CHEPA).

Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994). Handbook of qualitative research. Thousand Oaks: Sage Publications.

Donner, G., Semogas, D., & Blythe, J. (1994). Towards an understanding of nurses' lives: Gender, power, and control. Toronto, Canada: University of Toronto, Faculty of Nursing.

- Eisner, E. W. (1991). The enlightened eye: Qualitative inquiry and the enhancement of educational practice. Toronto, Canada: Collier Macmillan.
- Ellis, J. R., & Hartley, C. L. (1998). Nursing in today's world. Challenges, issues, and trends (6<sup>th</sup> ed.). Philadelphia: Lippincott-Raven Publishers.
- Essex County District Health Council. (1993). The Essex county win win model. Preliminary report of the steering committee. Windsor: Partners in Health Planning.
- Feldman, R. S. (1993). Understanding psychology. New York: McGraw-Hill.
- Field, P. A., & Morse, J. M. (1985). Nursing research: The application of qualitative approaches. London: Croom Helm.
- Firestone, W. A. (1993). Alternative arguments for generalizing from data as applied to qualitative research. Educational Research, 22(4), 16-23.
- Flood, S. D., & Diers, D. (1988). Nurse staffing, patient outcome, and cost. Nursing Management, 19, 34-43.
- Fraenkel, J. R., & Wallen, N. E. (1993). How to design and evaluate research in education (2<sup>nd</sup> ed.). New York: McGraw-Hill.
- Frank, A. G. (1988). The development of underdevelopment. In C. K. Wilber (Ed.), The political economy of development and under-development (4<sup>th</sup> ed., pp. 109-120). New York: Random House Business Division.
- French, S. E. (1982). Design for accreditation for educational programmes in nursing. In M. Steed-Henderson (Ed.), Recent advances in nursing: Nursing education. (pp. 81-102). London: Churchill-Livingstone.
- French, S. E. (1993). Assessment of the Capacity of the Government Institutions. Unpublished report. Contribution to Development of Women in Pakistan Institutional Appraisal Report. Ottawa, Canada: Canadian International Development Agency.
- French, S. E., & Herberg, P. (1995). Capacity building: The challenge of strengthening the nursing system in Pakistan. Journal of Canada-Pakistan Cooperation, 9, 1-4.
- French, S., Watters, D., & Matthews, R. (1994). Nursing as a career choice for women in Pakistan. Journal of Nursing Administration, 19, 140-151.

Gamson, W., & Modiglioui, A. (1987). Conceptions of social life: A text-reader for social psychology. Boston: Little Brown & Company.

Garsonnin, J. (1994). Human resource development in nursing. Management Plan Development of Women Health Professionals (DWHP): Nurses and Lady Health Visitors. Unpublished report. Hamilton, Canada: McMaster University School of Nursing and Karachi, Pakistan: The Aga Khan University School of Nursing.

Ghafoor, A. (1984). Development of human resource population manpower and employment policies in Pakistan. Pakistan's Occasional Paper. Islamabad, Pakistan: Manpower Institute.

Ghazi, C. M. K., Nasser, S., Ismail, M., Fikry, N. E., & Selim, M. A. (1994). The remuneration of Egyptian nurses. In D. Marsden (Ed.), The remuneration of nursing personnel (pp. 127-146). Geneva: International Labour Office.

Ginzberg, E. (1986). The development of human resources. New York: McGraw-Hill.

Glaser, B. G., & Strauss, A. L. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Publishing Company.

Goggin, M. L. (1987). Policy design and the politics of implementation: The case of child health care in the American States. Tennessee: University of Tennessee Press.

Government of Pakistan (GOP). (1973). Rules of business cabinet secretariat. Islamabad: Establishment Division.

Government of Pakistan (GOP). (1978). The fifth five year plan, 1978-1983. Islamabad: Planning Commission.

Government of Pakistan (GOP). (1983.) The sixth five year plan, 1983-1988. Islamabad: Planning Commission.

Government of Pakistan (GOP). (1988). The seventh five year plan, 1988-1993. Islamabad: Planning Commission.

Government of Pakistan (GOP). (1990). National health policy. Islamabad: Ministry of Health, Special Education, and Social Welfare (Health Division).

Government of Pakistan (GOP). (1991). National manpower commission report. Islamabad: National Manpower Commission.

Government of Pakistan (GOP). (1993). The eighth five year plan, 1993-1998. Islamabad: Planning Commission.

Government of Pakistan (GOP). (1994). Social Action Program: Report to the Pakistan consortium. Islamabad: Federal SAP Secretariat, Planning Commission.

Government of Pakistan (GOP). (1995). Health sector: A situational report. Islamabad: Planning Division.

Government of Pakistan (GOP). (1996). Economic survey, 1995-1996. Islamabad: Economic Advisor Wing, Finance Division.

Green, A. (1995). An introduction to health planning in developing countries. Oxford: Oxford University Press.

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. Educational Communication and Technology Journal, 29, 75-91.

Hall, E. T. (1990). The silent language. Garden City, NY: Anchor Books.

Hall, T. L. (1988). Guidelines for health workforce planners. World Health Forum, 8, 409-413.

Hall, T. L. (1989). The dance of life: The other dimension of time. Garden City, NY: Anchor Books.

Hall, T. L. (1993). Human resource for health: Models for projecting workforce supply and requirements. Geneva: WHO.

Hall, T. L. (1995). Guidelines for a human resource development study. Geneva: WHO.

Hall, T. L., & Mejia, A. (1978). Health manpower planning: Principles, methods, issues. Geneva: WHO.

Hammersley, M. (1992). What wrong with ethnography? New York: Routledge.

Hancock, C. (1992). Nurses and skill mix. Senior Nurse, 12(5), 9-12.

Harnar, R., Amarsi Y., Herberg, P., & Miller, G. (1992). Health and nursing services in Pakistan: Problems and challenges for nurse leaders. Nursing Administration Quarterly, 16(2), 52-59.

Hellinger, S., Hellinger, D., & O'Regan, F. M. (1988). Aid for just development. Boulder: Lynne Rienner Publishers.

Herberg, P. (1989). A critical analysis of the health promotion movement and implications for nursing. Unpublished doctoral dissertation, University of Utah, College of Nursing.

Hughes, O., Wade, B., & Peters, M. (1991). The effects of a synthesis of nursing practice course on senior nursing students' self-concept and role perception. Journal of Nursing Education, 30(2), 69-72.

Integrated Health Human Resources Development Project (IHHRDP). (1996). Integrated health human resources development: Pragmatism or pie in the sky. Ottawa, Canada: Canadian Nurses' Association.

International Council of Nurses. (1995). Worldwide survey of nursing issues. International Nursing Review, 42(4), 125-127.

Jan, R. (1996). A cultural dilemma: Pakistani nursing. Reflections, 22(4), p. 19.

Janis, I. (1992). Causes and consequences of defective policy-making: A theoretical analysis. In F. Heller (Ed.), Decision-making and leadership. New York: Free Press.

Kazanjian, A. (1991). A single stochastic model for forecasting nurse supply and for estimating life-cycle activity patterns (HHRU 91:4R). Unpublished report, University of British Columbia, Health Human Resources Unit, Centre for Health Services and Policy Research, Vancouver.

Kazanjian, A. (1993). Health manpower planning or gender relations? The obvious and the oblique. In E. Riska & K. Wegar (Eds.), Gender work and medicine. Newbury Park, CA: Sage Publications.

Kazanjian, A. (1995). Inventory update 94: A regional analysis of health personnel in the province of British Columbia (HHRU 95:2). Unpublished report, University of British Columbia, Health Human Resource Unit, Centre for Health Services and Policy Research, Vancouver.

Kazanjian, A., Brothers, K., & Wong, G. (1986). Modelling the supply of nurse labour: Life-cycle activity patterns of registered nurses in one Canadian delivery system. Medical Care, 24(12), 1067-2083.



Kazanjian, A., & Chan, S. (1984). Nurse requirements in British Columbia: An analysis of the 1972-1982 trends. Part I: Methods and preliminary findings - Institutional analysis (HSRD S:16). Unpublished report, University of British Columbia, Division of Health Services Research and Development, Vancouver.

Kazanjian, A., & Wood, L. (1993). Nursing resources in British Columbia: Trends, tensions, and tentative solution (HPRU 93:5D). Unpublished report, University of British Columbia, Health Policy Research Unit, Centre for Health Services and Policy Research, Vancouver.

Keat, R., & Urry, J. (1982). Social theory as science (2<sup>nd</sup> ed.). London: Routledge & Kegan Paul.

Keet, M. P., Henley, L. D., Power, H. M., & Heese, H. (1990). Medical manpower - South African situation models for planning and recommendation. South African Medical Journal, 78, 591-596.

Kemal, A. R., & Mahmood, M. (1997). Poverty and policy in Pakistan. In T. Banuri, S. R. Khan, & M. Mahmood (Eds.), Just development (pp. 63-90). Karachi: Oxford University Press.

Kennedy, C. H. (1987). Bureaucracy in Pakistan. Karachi: Oxford University Press.

Kennedy, C. H., & Rais, R. B. (Eds.). (1995). Pakistan 1995. Colorado: Westview Press.

Kerr, J., & MacPhail, J. (1996). Canadian nursing: Issues and perspectives. St. Louis: Mosby Year Book.

Khan, N. S., & Zia, A. S. (Eds.). (1995). Unveiling the issues. Lahore, Pakistan: ASR Publications.

Knafl, K. A., & Webster, D. C. (1988). Managing and analyzing qualitative data: A description of tasks, techniques, and materials. Western Journal of Nursing Research, 10, 195-218.

Kolehmainen-Aitken, R. (1993). Human resource planning: Issues and methods. Boston: Harvard University.

Kramer, M. G., & Schmalenberg, C. (1988, January). Magnet hospitals: Part I. Institutions of excellence. Journal of Nursing Administration, 18(1), 13-24.

- Leavitt, H. J. (1985). Section B: The perceptual process and human behavior: Perception from the inside looking out. In H. L. Tosi & W. C. Hamner (Eds.), Organizational behavior and management (pp. 155-178). Columbus, Ohio: Grid Publishing, Inc.
- Leninger, M. M. (Ed.). (1985). Qualitative research methods in nursing. Orlando, FL: Grune & Stratton.
- Leslie, J. (1986). Weathering economic crises: The crucial role of women in health. Washington, DC: International Centre for Research on Women.
- Lim, L. L., & Coenjaerts, C. (1993, November). Creating the enabling environment of women's employment in Pakistan. A report of the ILO mission for regional office for Asia and the Pacific Bangkok. Geneva: International Labour Office.
- Lincoln, Y., & Guba, E. G. (1981). Epistemological and methodological bases of naturalistic inquiry. Educational Communication and Technology Journal, 82(30), 233-252.
- Lincoln, Y. S., & Guba, E. G. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage Publications.
- Lincoln, Y. S., & Guba, E. G. (1989). Fourth generation evaluation. Newbury Park, CA: Sage Publications.
- Lindsey, A. E. (1988). Staff nurses' perceptions of support in an acute care workplace. Victoria: University of Victoria.
- Lipsky, M. (1980). Street-level bureaucracy: Dilemmas of the individual in public services. New York: Russell Sage Foundation.
- Lockheed, M. (1991). Improving primary education in developing countries. Washington, DC: Oxford University Press (Published for World Bank).
- Lomas, J. (1993). Making clinical policy explicit: Legislative policy-making and lessons for practice guideline development. International Journal of Technology Assessment in Health Care, 9(1), 11-25.
- Mahbub ul Haq. (1997). Human development in South Asia. Karachi, Pakistan: Oxford University Press.
- Majehrzak, A. (1984). Methods for policy research. London: Sage Publications.

Manga, P., & Campbell, T. (1993). Health human resource substitution: A major area of reform towards a more cost-effective health care system. Working paper 94.01. Ottawa, Canada: University of Ottawa.

Markham, B., & Birch, S. (1997). Back to the future: A framework for estimating health care human resource requirements. Canadian Journal of Nursing Administration, 10(1), 7-23.

Marsden, D. (1994). The remuneration of nursing personnel. Geneva: International Labour Office.

Marshall, C., & Rossman, G. B. (1989). Designing qualitative research. Newbury Park, CA: Sage Publications.

Marshall, C., & Rossman, G. B. (1995). Designing qualitative research (2<sup>nd</sup> ed.). Thousand Oaks, CA: Sage Publications.

Mazmanian, D. A., & Sabatier, P. A. (Eds.). (1989). Effective policy implementation. Lexington, MASS: Lexington Books.

McBride, A. B. (1987). The National Centre for Nursing Research. Social Policy Reports, 2(2) 1-11.

McCloskey, J. C. (1990). Two requirements for job contentment: Autonomy and social integration. IMAGE: Journal of Nursing Scholarship, 22, 140-143.

McCormack, B. (1992). A case study identifying nursing staffs' perception of the delivery method of nursing care in practice on a particular ward. Journal of Advanced Nursing, 17, 187-197.

McGillick, K. (1983). Modifying shift schedules makes jobs more satisfying. Nursing Management, 14, 53-55.

McGracken, G. D. (1988). The long interview. Newbury Park, CA: Sage Publications.

McKenna, H. P. (1995). Nursing skill mix substitutions and quality of care: An exploration of assumptions from the research literature. Journal of Advanced Nursing, 21, 452-459.

Meltz, N. M. (1988). Sorry no care available due to nursing shortage. Toronto: Registered Nurses' Association of Ontario.

Merriam, S. B. (1988). Case study research in education: A qualitative approach. San Francisco, CA: Jossey-Bass.

Merryfield, M. M. (1990). Constructing scenes and dialogues to display findings in case study reporting. Columbus: Ohio State University, College of Education.

Miles M. B., & Huberman, A. M. (1994). An expanded source book: Qualitative data analysis (2<sup>nd</sup> ed.). London: Sage Publications.

Ministry of Health (MOH). (1992). Strengthening of human resources in nursing in Pakistan. Executive action document. WHO Nursing Advisors Report, Pakistan.

Mohsin, S. (1993). Keynote address. Development of Women Health Professionals (DWHP). Report of the workshop proceedings, December 4-7, 1993, Bhurban, Pakistan. Ministry of Health, Government of Pakistan in collaboration with Canadian International Development Agency (CIDA).

Morgan, P. (1993). Development of women health professionals: Institutional appraisal report. Unpublished report, Canadian International Development Agency, Ottawa.

Mubarak, M. M. (1990). Health coverage in Pakistan: An evaluation for future strategy "Health for All". Rawalpindi: The Army Press (Regd.).

Munhall, P. L., & Boyd, C. O. (Eds.). (1993). Nursing research: A qualitative perspective (2<sup>nd</sup> ed.). New York: National League for Nursing Press.

Nasim, A., & Akhlaque, A. (1995). Human resource development and economic policy: The case of Pakistan. Lahore, Pakistan: Lahore University of Management Sciences.

National Institute of Population Studies (NIPS). (1992). Pakistan demographics and health survey 1990-1991. USA: DHS IRD/Macro International Inc.

Nursing Effectiveness, Utilization, and Outcomes Research Unit. (1997). Health human resource planning in the province of Ontario. Submitted to the Joint Provincial Nursing Committee and the Ontario Ministry of Health. Hamilton, Ontario: McMaster University.

O'Brien-Pallas, L. (1992). Overview of nursing research in health care within the current economic context. Canadian Journal of Nursing Administration, 20-24.

O'Brien-Pallas, L., & Baumann, A. (1992). Quality of nursing work life issues: A unifying framework. Canadian Journal of Nursing Administration, 5(2), 12-16.

O'Brien-Pallas, L., Baumann, A., & Villeneuve, M. J. (1994). The quality of nursing worklife (pp. 391-409). In J. Hibberd & M. E. Kyle (Eds.), Nursing management in Canada. Toronto: W. B. Saunders Company.

O'Brien-Pallas, L., Hirshfeld, M., Baumann, A., Shamian, J., Bajnok, I., Adams, O. et al. (1997). A study to examine the strengthening of nursing and midwifery services: Phase 1. An examination of the extent of implementation of resolution (WHA45.5). Ottawa: International Development Research Centre.

Oppenheim, A. N. (1996). Questionnaire design, interviewing, and attitude measurement. New York: Pinter Publishers.

Ortin, E. (1994). The remuneration of nursing personnel in the Philippines. In D. Marsden (Ed.), The remuneration of nursing personnel (pp. 183-227). Geneva: International Labour Office.

Ozcan, S., Taranto, Y., & Hornby, P. (1995). Shaping the health future in Turkey: A new role for human resource planning. International Journal of Health Planning and Management, 10, 305-319.

Pagliccia, N., Wood, L., & Kazanjian, A. (1993). Nursing resource models: Part I. Synthesis of the literature and a modelling strategy for British Columbia (HHRU 93:2). Unpublished report, University of British Columbia, Health Human Resource Unit, Centre for Health Services and Policy Research, Vancouver.

Pakistan Nursing Council (PNC). (1973). Act No. XXVI of 1973: Passed by the National Assembly of Pakistan. Islamabad: Author.

Park, C., & Hughes, L. (1997, January-February). Perspectives: New nursing graduates - A key factor in nursing supply. Canadian Journal of Nursing Administration, 59-68.

Patton, M. Q. (1990). Qualitative evaluation and research methods (2<sup>nd</sup> ed.). Newbury Park, CA: Sage Publications.

Prescott, P.A. (1989). Shortage of professional nursing practice: A reframing of the shortage problem. Heart and Lung, 8(5), 436-443.

Prescott, P. A., Dennis, K. E., Geasia, J. L., & Bowen, S. A. (1985). Nursing shortage in transition. Image, 17(4), 127-133.

- Presthus, R. (1992). Elite accommodation in Canadian politics. In A. Baumgart & J. Larsen (Eds.), Canadian nursing facing the future (2<sup>nd</sup> ed., p. 479). Toronto: Mosby Year Book.
- Radford, K. J. (1980). Strategic planning: An analytic approach. Reston, VA: Reston Publishing Company, Inc.
- Reason, P., & Rowan, J. (Eds.). (1981). Human inquiry: A source book of new paradigm research. New York: Wiley.
- Reid, J. (1992). Computer individualised nursing care: Some implications. Journal of Clinical Nursing, 1, 7-12.
- Reid, U. V. (1990a). Nursing manpower commonwealth Caribbean: A balancing act. Unpublished report, Barbados.
- Reid, U. V. (1990b). An economic model for nurse manpower planning in the Caribbean: Part II. Strategies. International Nursing Review, 37(6), 337-339.
- Rew, L., Bechtel, D., & Sapp, A. (1993). Self-as-instrument in qualitative research. Nursing Research, 42, 300-301.
- Rosen, J. E., & Conly, S. R. (1996) Pakistan's population program: The challenge ahead (Country Study Series No. 5, p. 13). Washington, DC: Population Action International.
- Rosenfeld, P. (1988). Measuring student retention: A national analysis. Nursing and Health Care, 9, 199-202.
- Ryten, E. (1997). A statistical picture of the past, present, and future registered nurse in Canada. Ottawa, Canada: Canadian Nurses' Association.
- Sabatier, P. (1987). Knowledge, policy-oriented learning, and policy change. Knowledge: Creation, diffusion, utilization, 8, 649-92.
- Sabatier, P. A. (1988). An advocacy coalition framework of policy change and the role of policy-oriented learning therein. Policy Science, 21(2-3), 129-168.
- Sabatier, P. A. (1990). Top-down and bottom-up approaches to implementation research: A critical analysis and suggested synthesis. Journal of Public Policy, 6(I), 21-48.

- Sabatier, P., & Mazmanian, D. (1979). The conditions of effective implementation: A guide to accomplishing policy objectives. Policy Analysis, 5, 481-504.
- Saeed, A. (1990). Structural issues in women's development in Pakistan. Islamabad: UNICEF Pakistan.
- Sandelowski, M. (1994). The proof is in the pottery: Toward a poetic for qualitative inquiry. In J. M. Morse (Ed.), Critical issues in qualitative research methods (pp. 46-63). Newbury Park, CA: Sage Publications.
- Sandelowski, M. (1995). Focus on qualitative methods sample size in qualitative research. Research in Nursing and Health, 18, 179-183.
- Sandelowski, M. (1996). The problem of rigor in qualitative research. Advances in Nursing Sciences, 8(3), 27-37.
- Schmeling, W. H. (1992). Recruitment and retention of nursing personnel. In M. E. Cowart & W. J. Serow (Eds.), Nurses in the workplace (chapter 10). Newbury Park, CA: Sage Publications.
- Schultz, T. P. (1989). Women and development: Objectives framework and policy intervention. Princeton, NJ: Yale University, Department of Economics.
- Shaheed, F., & Mumtaz, K. (1990). Women's economic participation in Pakistan. A status report. Islamabad, Pakistan: Shirkat Gah for UNICEF.
- Siddiqui, S. (1995, February 7-13). Nursing - coming a long way. Dawn Tuesday Review, pp. 2-8.
- Smith, V. A. (1990). Nursing student attrition and implications for pre-admission advisement. Journal of Nursing Education, 29(5), 215-8.
- Speake, D. L. (1988). Addendum to shifts in supply and demand for nursing and other health care personnel in the 1980s: A review and evaluation of the literature. Tallahassee: Florida Hospital Cost Containment Board.
- Speake, D. L. (1992). The education of nurses. In M. E. Cowart & W. J. Serow (Eds.), Nurses in the workplace (chapter 5). Newbury Park, CA: Sage Publications.
- Stelling, J. (1994). Staff nurses' perceptions of nursing: Issues in a woman's occupation. In B. S. Bolaria & H. D. Dickinson (Eds.), Health, illness, and health care in Canada (2<sup>nd</sup> ed.). Toronto, Canada: Harcourt Brace.

Stewart, D. W., & Shamdasani, P. N. (1990). Focus groups: Theory and practice. Newbury Park, CA: Sage Publications.

Strauss, A. L. (1987). Qualitative analysis for social scientists. New York: Cambridge University Press.

Strauss, A. L., & Corbin, J. M. (1990). Basics of qualitative research: Grounded theory. Newbury Park, CA: Sage Publications.

Sudman, S., & Bradburn, N. M. (1988). Asking questions: A practical guide to questionnaire design. San Francisco, CA: Jossey-Bass Publishers.

Tesch, R. (1990). Qualitative research: Analysis types and software tools. Bristol, PA: Falmer Press.

Tierney, A. (1993). Challenges for nursing research in an era dominated by health service reform and cost containment. Clinical Nursing Research, 2(4), 382-395.

Transfer of key health officers. (1997, May 17). Dawn, p.1.

United Nations Development Program (UNDP). (1993). Balanced development: An approach to social action in Pakistan. Summary report. Islamabad, Pakistan.

United Nations Development Program (UNDP). (1994). Human development report 1994. New York: Oxford University Press,

United Nations Development Program (UNDP). (1995). Human development report. New York: Oxford University Press.

UNICEF. (1992). Situational analysis of children and women in Pakistan. Islamabad, Pakistan: Pictorial Printers.

Waite, R., Buchan, J., & Thomas, J. (1990). Career of Scotland's qualified nurses. Scottish Office.

Walker, B., Jr. (1994). Impediments to the implementation of environmental policy. Journal of Public Health Services, 15(2), 186-202.

Ward, S. J. (1992). A review of regulations and incentives for health staff in Pakistan: With emphasis on female staff and rural areas. Ottawa: Canadian International Development Agency.



Wazir Ali. (1993, December 7). Nursing services structures to be upgraded. The Nation, p. 3. Islamabad.

Weber, E. U. (1985). A descriptive measure of risk. Acta Psychologica, 69, 185-203.

Wilber, C. K. (1988). The political economy of development and underdevelopment (4<sup>th</sup> ed.). New York: McGraw-Hill.

Willms, D. G., & Johnson, N. A. (1993). Essentials in qualitative research: A notebook for the field. Hamilton, Ontario, Canada: McMaster University.

Wise, L. C. (1990). Tracking turnover. Nursing Economics, 8(1), 45-51.

World Bank. (1990). Women in Pakistan: An economic and social strategy. Washington, DC: Author.

World Bank. (1991). World development report 1991: The challenge of development. Washington, DC: Oxford University Press.

World Bank. (1993a). World development report 1993. Washington, DC: Oxford University Press.

World Bank. (1993b). Islamic republic of Pakistan health sector study: Key concerns and solutions (Report No. 10391-PAK). Washington, DC: The World Bank, Population and Human Resource Division, Country Development III South Asia Region.

World Bank. (1993c). Staff appraisal report: Pakistan second family health project (Report No. 11127-PAK). Washington, DC: The World Bank, Population and Human Resource Division, Country Development III South Asia Region.

World Bank. (1994). Staff appraisal report: Islamic republic of Pakistan social action program project (Report No. 12588-PAK). Washington, DC: The World Bank, Population and Human Resource Division, Country Development III South Asia Region.

World Bank. (1996). World development report 1996. Washington, DC: Oxford University Press.

World Bank. (1997, May). Pakistan towards a health sector strategy. Washington, DC: The World Bank, Population and Human Resources Division, Country Department I, South Asia Region.

World Health Organization (WHO) Expert Committee. (1985). Health manpower requirements for the achievement of health for all by the year 2000 through primary health care (Technical Report Series 717). Geneva: Author.

World Health Organization (WHO) Expert Committee. (1989). Management of human resources for health (Technical Report Series 783). Geneva: Author.

World Health Organization (WHO) Study Group. (1990). Coordinated Health Human Resource Development (Technical Report Series 801). Geneva: Author.

World Health Organization (WHO). (1997, December). Nursing practice around the world. Geneva: Author.

Wunderlich, G., Sloan, F., & Davis, C. (Eds.). (1996). Nursing staff in hospitals and nursing homes: Is it adequate? Washington, DC: National Academy Press.

Yapchiongco, A. (1990). A survey of nursing schools in the Philippines. Philippine Journal of Nursing Education (Metro Manila), 1(1), 17-23.

Zia, A. S. (1994). Sex crime in the Islamic context. Lahore, Pakistan: ASR Publication.

Zaidi, S. A. (1988). The political economy of health care in Pakistan. Lahore, Pakistan: Vanguard Books Ltd.

**APPENDIX A**  
**MAP OF PAKISTAN**

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**MAP OF PAKISTAN**



**APPENDIX B**  
**DESIGNATION ACCORDING TO PAY SCALE**  
**OF NURSING PERSONNEL IN PAKISTAN**

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**DESIGNATION ACCORDING TO PAY SCALE**  
**OF NURSING PERSONNEL IN PAKISTAN**

1. **Basic Pay Scale - 14**
  - ▶ **Staff Nurses**
  
2. **Basic Pay Scale - 16**
  - ▶ **Nursing Sister**
  - ▶ **Assistant Nursing Superintendent**
  - ▶ **Assistant Tutor**
  - ▶ **Midwife Supervisor**
  - ▶ **Public Health Supervisor**
  
3. **Basic Pay Scale - 17**
  - ▶ **Sister Tutor**
  - ▶ **Deputy Controller**
  - ▶ **Nursing Superintendent**
  - ▶ **Clinical Instructor**
  
4. **Basic Pay Scale - 18**
  - ▶ **Controller**
  - ▶ **Chief Nursing Superintendent**
  - ▶ **Assistant Director**

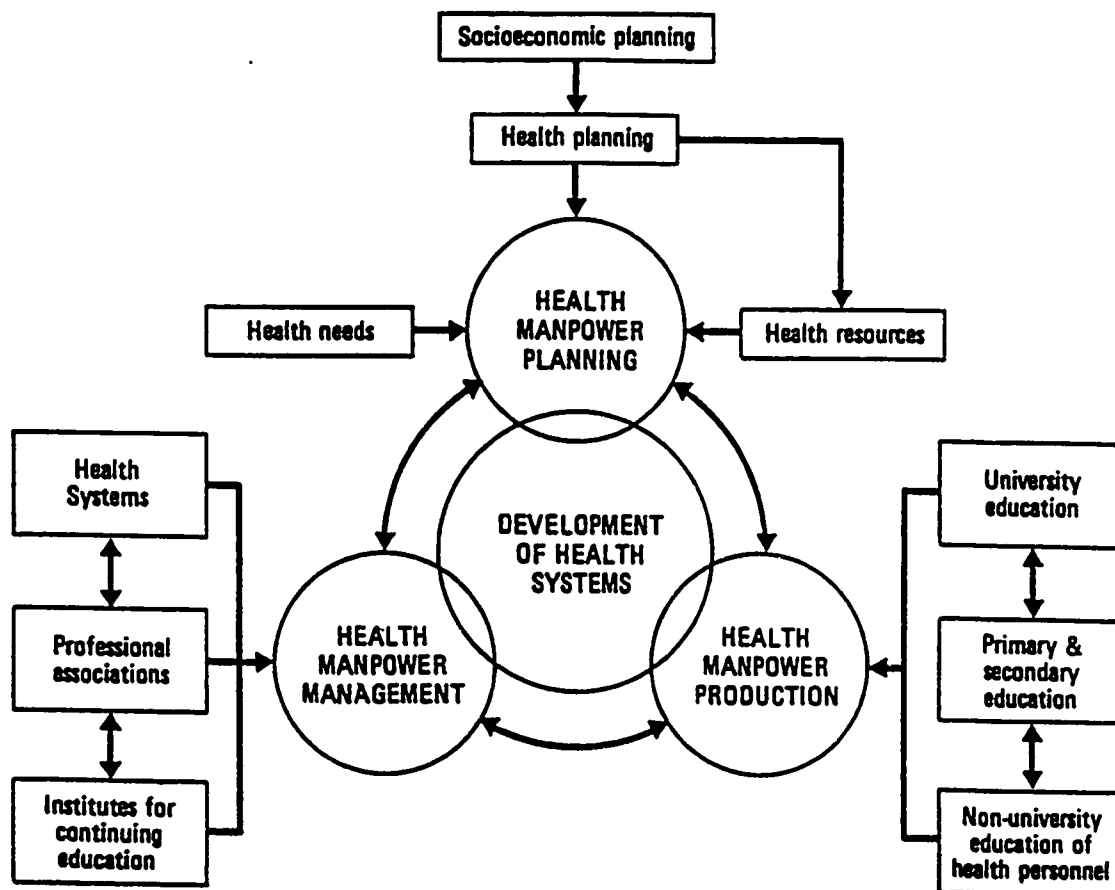
5. **Basic Pay Scale - 19**
  - ▶ **Deputy Director Nursing**
  
6. **Basic Pay Scale - 20**
  - ▶ **Director Nursing**

**Source: Directorate of Nursing Office, Karachi, Sindh.**

**APPENDIX C**  
**COHRD FRAMEWORK**



## APPENDIX C

COHRD FRAMEWORK

Source: World Health Organization (WHO) Study Group. (1990). Coordinated health human resource development. (Technical Report Series 801, p. 10.) Geneva: WHO.

**APPENDIX D**

**HUMAN RESOURCE DEVELOPMENT**

**INTERVIEW GUIDE FOR KEY STAKEHOLDERS**

## **APPENDIX D**

### **HUMAN RESOURCE DEVELOPMENT**

#### **INTERVIEW GUIDE FOR KEY STAKEHOLDERS**

##### **Introduction**

I am a PhD student in the Clinical Health Sciences, Nursing Programme, at McMaster University, Hamilton, Canada. I am conducting a study of Nursing Human Resource Development in Sindh. I am exploring planning and policy aspects, supply and demand of nurses, basic education of nurses, and working conditions of nurses. The intent of this interview is to seek your opinions relating to current nursing human resource development.

##### **General Questions**

1. What is your opinion about the current nursing situation in the province of Sindh?
2. How would you describe the working conditions of nurses in the province?
3. What do you think about the basic education of nurses in the province?
4. What do you think about the policies regarding nurses?
5. Considering the health manpower situation in Pakistan, on what basis do you think health manpower development is done in country?
6. On what basis do you think nursing human resources development is carried out?

#### **Probes in Relation to Planning, Production, and Management**

##### **Human Resource Planning**

I would like to discuss the nursing human resource situation in Sindh with you.

1. What do you think about the nursing human resource situation in Sindh?
  - a. What do you think are the contributing factors to the current situation? Why do you say that?

- b. What do you think about the supply of nurses in the province? Why do you say that?
  - c. What do you think about the demand of nurses in the province? Why do you say that?
  - d. What do you think about the number of nurses in the province? Why do you say that?
  - e. Would you tell me about the sanctioned nursing positions in the province? Why do you say that?
  - f. How do you think the nurses are distributed at different levels of health care (primary, secondary, and tertiary levels)? Why do you think so?
  - g. What are the plans for new positions for nurses next year?
  - h. Have you been involved in planning of health care?
  - i. In what way did your input influence the planning of nursing human resources?
  - j. Do you think the planners incorporate the number of nurses in the planning process? What is your opinion about this? Why do you think so?
  - k. How are new positions planned for nurses every year? Do you agree with this method? Why do you say that?
2. What do you think about the human resource policies regarding nurses?
- a. What is the process of formulating policies regarding nursing human resources?
  - b. Would you agree with the process? Why would you do so?
  - c. What is your opinion about implementation of policies regarding nursing human resources?
  - d. In your view, what factors facilitated the implementation process?
  - e. In your view, what factors hindered the implementation process?

- f. On what basis would you formulate a policy?
- g. Have you been involved in policy formulation process at the federal level?, the provincial level?, institutional level? If yes, how have been able to influence the policy making process?

### **Human Resource Production**

1. What do you think about the basic education of nurses in the province?, post-basic?
2. Do you think the educational programme prepares nurses for their roles? Why do you say that?
3. What are your views about the training capacity for nurses in Sindh? Why do you say that?
4. What do you think about the faculty-student ratio in schools of nursing? Could you elaborate?

### **Human Resource Management**

1. How would you describe the working conditions of nurses in the province?
  - a. What is your view about the working conditions of nurses in the province? Why do you say that?
  - b. What factors affect the working conditions? Do you agree with these factors? Why do you think so?
  - c. What benefits are provided to nurses in the province? What is your opinion about these benefits? Why do you think that?
  - d. In your opinion are nurses satisfied with their jobs? Why do you say that?
  - e. Are there unregistered health care providers in the health care system?
  - f. What is your opinion about that?

### **Demographic Data**

I would like to ask you some routine personal questions in order to describe to my thesis committee who I interviewed.

1. In what age range are you in? (show cards)
2. What is your marital status?
3. What are your educational qualifications?
4. How long have you worked in the government/public service?
5. What are the major positions you have held in the government?

### **Concluding Statements/Questions**

I have asked you a lot of questions about nursing human resources. Would you like to tell me something I might have missed?

Is there anyone you would recommend that I interview to learn more about nursing human resources in Sindh?

Thank you very much for your valuable time!

If I need more information, is it possible for me to contact you again?

**APPENDIX E**

**DEPICTION OF COMPONENTS AND**

**SOCIO-CULTURAL, ECONOMIC, AND POLITICAL ENVIRONMENT**

**IN THE COHRD FRAMEWORK**

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**DEPICTION OF COMPONENTS AND**

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