THE BASIC STUDY REPORT ON POPULATION AND FAMILY PLANNING IN THE ISLAMIC REPUBLIC OF PAKISTAN

NOVEMBER 1993

JAPAN INTERNATIONAL COOPERATION AGENCY
MEDICAL COOPERATION DEPARTMENT

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Preface

The Japan International Cooperation Agency (JICA) decided to dispatch a study team to survey current situation of population and maternal and child health in the Islamic Republic of Pakistan. The Basic study team headed by Dr. Etsuko Kita, Director, the Expert Service Division, Bureau of International Cooperation, International Medical Center of Japan, visited Pakistan from May 21, 1993 to June 20, 1993.

The team exchanged views with the Pakistani authorities concerned and conducted field visits in the country. Upon returning to Japan, further analysis was made on the data and information obtained and the present report has been prepared.

I hope that this report will serve for Japan's cooperation for maternal and child health services and thus contribute to promotion of public health in the Islamic Republic of Pakistan.

I wish to express my sincere appreciation to the Officials concerned of the Government of Pakistan for the cooperation extended to the study team.

November, 1993

Daiji Ozawa
Vice President
Japan International
Cooperation Agency

PAKISTAN


CHINA
GILGIT
JAMMU &
KASHMIR
(DISPUTED AREA)
PESHAWAR
ISLAMABAD
AFGHANISTAN
N.W.F.P.
LAHORE
PUNJAB
QUETTA
INDIA
BALOCHISTAN
IRAN
SINDH
KARACHI
ARABIAN SEA

Summary

(1) For further smooth and effective cooperation in the area of maternal and child health including family planning in Pakistan, the Japan International Cooperation Agency (JICA) has dispatched a team to Pakistan to conduct a basic study on population and family planning with focus on maternal and child health.

(2) Pakistan is the ninth most populous country in the world and its population at the point of January 1 in 1991 is estimated to be 117.32 million (61 million male and 56 million female). The present growth rate of population is estimated to be about 3.1%. At this speed of growth, the total population of Pakistan by the year 2000 will reach about 150 million. Current Total Fertility Rate (TFR) has dropped from 6.3~6.5 children per women in the 1970s to 5.4 children, however, its rate is still much higher when comparing with other Asian developing countries. The literacy rate in 1991 has gone up from male 35.1% and female 16.0% in 1981 to 46% for males and to 21% for females, though still among the lowest level in the world. According to Pakistan Demographic and Health Survey 1990/1991(PDHS), no antenatal care was received during pregnancy for 70% of the births, while 85% of delivery took place at home. The maternal mortality rate is estimated to be about 500 per 100,000 live births and considered to be among the highest not only in South Asian neighbours but also in the world. As for the infant mortality rate which is also high, 91 deaths per 1,000 live births are estimated according to the current survey.

(3) No significant improvements have been found regardless of various policies and approaches such as promotion of small-member families and utilization of modern family planning have been adopted for restraining the rapid population growth. However, it is planned that Rs. 9.1 billion will be distributed in this area (three times more than the budget of the 7th Five-Year Plan) in the 8th Five-Year Plan and that coverage area of family planning service will be broadened up to 80% nationwide (from 5% to 70% in rural areas and from 54% to 100% in urban areas).

The Ministry of Population Welfare, as an implementation body of population policies, is responsible for total management of programs such as policy planning, setting targets, and arrangement of foreign assistance.

The provincial population welfare departments, on the other hand, maintain, administer, and monitor the functioning of the service delivery outlets in policy implementation.

Family Welfare Center(FWC) and Reproductive Health Service Centers(RHSC) are both under jurisdiction of provincial governments and

responsible for providing family planning services. Individual counselling and instruction on family planning and maternal health, etc. are provided at FWC and female contraceptive surgery is mainly provided at RHSC. A clinical training of paramedical staffs (Family Welfare Workers: FWWs) as well as a basic training and a refresh training is provided at twelve Regional Training Institutes(RTIs). There are also three Population Welfare Training Institutes (PWTIs) for nationwide non-clinical training, which provide education on program management and communication etc. to field officers associated with population programmes.

(4) As for health services, a nationwide health service network, consisting of primary health care services emphasizing PHC(BHU, MCH center, RHC) in rural areas, secondary level health care facilities (regional hospitals), and tertiary health care services (provincial or teaching hospitals), has been organized since the 7th Five-Year Plan. However, its referral system has not been functioning for the lack of information exchange on cases between PHC facilities and other secondary or tertiary health care facilities, preventing the follow-up function of PHC. Inaccessibility by distance and transportation between these facilities also causes the difficulty in smooth functioning.

In rural areas, Basic Health Unit (BHU) and Rural Health Center (RHC) buildings cannot meet the needs of residents for the shortage of equipments and medical supplies. However, the prime reason for it is human rather than facilities. There are some health care facilities that can provide high quality medical treatments in urban areas as in developed countries, which is, though, only for limited people. Thus, there is a double imbalance between rural and urban people and wealthy and poor people in urban areas.

Insufficiency of female staff, who can contact residents directly, needed for health education both in quality and quantity is the main reason which makes prevalence of PHC, the basic national health policy, difficult. Currently, there are 55,572 registered doctors (a doctor per 2,165 people) and 18,150 nurses (a nurse per 6,617 people) showing the absolute shortage of these staffs. The shortage of nurses, in particular, is severe along with female health staff in rural areas.

Moreover, management of health areas is a serious problem. It is because there is no trained professionals in these areas and insufficient management starting from business and accounting to various equipments, consumables, medicines and system control.

The public expenditure on health, expressed in terms of percentage to GDP, has been gradually decreasing from 1% in fiscal year 1988/89 to 0.7% (estimate) in fiscal year 1991/92. Even though the health policies are given primary importance, a proportion of health expenditure in total public expenditure has decreased from 3.6% (1988/89) to 2.6% (1992/93). Thus, the decrease in health

expenditure clearly reflects the decrease in expenditure in the social sector.

The Pakistan government, recognizing the low-level human development prevents the economic growth and broaden the urban-rural and male-female differentials, has announced to improve the imbalance of health service leading to an improved medical health, distribution of health staffs, and of insufficient control over the whole system.

Several CHW(Community Health Worker) training programs are introduced to every village with more than 2,000 population for the prevalence of PHC in rural areas. In urban areas, PHC facilitation by providing subsidies to establish Urban Health Center (UHC) and a supportive system such as periodical visit of professional staffs (female doctors are included) are considered.

Considering the insufficient utilization of BHU and RHC systems as a whole and impossible expansion of a limited function, close cooperation system between CHWs or LHVs(Lady Health Visitors) working for BHUs, RHCs, MCH centers or communities and neighbouring secondary level health care facilities should be established.

As for MCH that can be covered by PHC, the followings are considerable; 1) explanation of general caution on pregnancy, safe and sanitary delivery, importance of breast-feeding and vaccination along with prevention and treatment of complications and Family Planning and 2) understanding of possible treatment of weaning or diarrhea through observation of children's growth.

The government of Pakistan has formulated a Social Action Programme(SAP) under cooperation of the World Bank by unifying various functions to promote national development, and is to be built in the 8th Five-Year Plan.

The objectives of the SAP are summarized in four areas; 1) promotion of female primary education, 2) improvement of rural health service, 3) population and family planning, and 4) rural water supply and sanitation. In terms of budget of the SAP, increasing budgets of various fields related to the SAP is planned; increase from 0.6% of GDP in 1991/1992 to 1.1% of GDP in 1992/1993 and further increase in the next two years. The increase from the present 0.36% to 0.69% in terms of health expenditure alone is also planned. It is planned that funds of the SAP will be collected from overseas donors (50%), federal government (25%), and provincial governments (25%), although final agreement has not been reached.

(5) In Pakistan, various projects related to its population such as health related projects covering maternal and child health/family planning have been and are planned by the assistance of foreign donors (See Chapter 5 for the description of major projects.). The present concern of Pakistan is that withdrawal of U.S.

Agency for International Development (USAID), which donates more than 50% of assistance for population program, will cause serious financial difficulty.

(6) The health indices in Pakistan indicate that there are a large number of women who repeatedly become pregnant, deliver, and suckle babies. Those women are physically exhausted and the babies born from the bodies of exhausted mothers are naturally in poor health, posing a problem of maternal and child health. In addition, it can be seen that educational consideration is essential for spreading knowledge of health and hygiene related to pregnancy and delivery or ensuring proper and effective use of appropriate health and hygienic techniques. Furthermore, the poor conditions of women and children in rural areas are the main causes of many of the maternal and child health problems in Pakistan.

In planning Japan's aid to Pakistan in the future, it is necessary for us to clearly express our own policy and consider technically feasible cooperation in line with Pakistan's 8th National Five-Year Plan and Social Action Program (SAP). In the field of maternal and child health in Pakistan, it is of urgent necessity to investigate causes of the high maternal mortality rate (MMR) and take improvement measures. In order to further grasp such a condition of Pakistani women as accurate as possible and work out effective improvement measures, it is necessary that professional researchers implement a fact-finding survey and situation analysis spending a relatively long period of time, at least several months. Based on the results of field study, discussions with Pakistani officials, and review of various data, the plan that is considered feasible is as follows.

1) "Technical cooperation in training in high risk pregnancy management", which will provide training courses in identifying and referring 'high-risk pregnancy' and to manage pregnancy complications.

2) "National safe-motherhood center", in which a training institute mainly fostering rural health personnel who train LHVs and CHWs will be established. This center should be positioned as a place of on-the-job training in maternal and child health and medical care, rather than an educational organization like a medical college.

Therefore, it is significant to select a reliable Pakistani counterpart first in terms of practical business, medical, and administrative capabilities and then to make them fully understand our purpose and intentions, and finally to formulate a project with several developing phases based on a complete agreement on the scope of cooperation and methods to be adopted.

List of Abbreviation

ADB	Asian Development Bank
ADP	Annual Development Plan
ADPWO	Assistant Deputy Population Welfare Officer
AJK	Azad Jammu and Kashmir
ARI	Acute Respiratory Infections
BHU	Basic Health Unit
CDD	Control of Diarrhea Disease
CHW	Community Health Worker
CIDA	Canadian International Development Agency
CPR	Contraceptive Prevalence Rate
DDPWO	Deputy District Population Welfare Officer
DHO	District Health Officer
DPWO	District Population Welfare Officer
ECNEC	Executive Committee of National Economic Council
EPI	Expanded Programme on Immunization
FATA	Federally Administrated Tribal Areas
FP	Family Planning
FPAP	Family Planning Association of Pakistan
FWA	Family Welfare Assistant
FWC	Family Welfare Center
FWW	Family Welfare Worker
ICH	Islamabad Children Hospital
ICT	Islamabad Capital Territories
IEC	Information Education and Communication
IPPF	International Planned Parenthood Federation
IUD	Intra Uterine Device
LHV	Lady Health Visitor
MCH	Maternal and Child Health
MCHC	Maternal and Child Health Center
MOH	Ministry of Health, Special Education and Social Welfare
MPW	Ministry of Population Welfare
MSU	Mobile Service Unit
NAs	Northern Areas
NGO	Non-Government Organization
NGOCC	NGO Coordination Council
NIPS	National Institute for Population Studies
NWFP	North West Frontier Province
ODA	Overseas Development Administration(UK)

ORS	Oral Rehydration Salt
PHC	Primary Health Care
PIMS	Pakistan Institute of Medical Sciences
PWD	Population Welfare Department
PWP	Population Welfare Program
PWTI	Population Welfare Training Institutes
RHC	Rural Health Center
RHSC	Reproductive Health Service Center
RTI	Regional Training Institute
SAP	Social Action Programme
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	U.S.Agency for International Development
VFPW	Village Family Planning Worker
WB	World Bank...International Bank for Reconstruction and Development
WHO	World Health Organization

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1. Introduction

1.1 Background

Population growth in Pakistan is extremely high as can be shown in its fertility rate (40.6 per 1,000 populations), mortality rate (10.6 per 1,000 populations) and population growth rate (3.1% per annum) and its population is expected to double in about twenty years as long as present growth rate continues. In addition, the poor condition of maternal and child health such as high infant and maternal mortality rate is also regarded as a serious matter.

Under this situation, the government of Pakistan has conducted several national plans in order to improve both maternal health and family planning since 1950s. Further cooperation of the Japanese government in this area is also requested which will follow its achievement of "Islamabad Children's Hospital", "College of Nursing project" and so on.

Therefore, the Japan International Cooperation Agency (JICA) has dispatched a team to Pakistan for a basic study on population and family planning aimed at the future cooperation in maternal and child health (including family planning), which is conducted by collecting and analyzing data on trends of population, current population policy and health activities including maternal and child health services at both national and provincial levels and trends of other donors.

1.2 Objective

Since the objective of this study is to recognize the potentiality of Japanese cooperation in maternal and child health of Pakistan, visits, interviews, and discussions were conducted at six central governmental organizations, eight provincial governmental organizations, nine primary health facilities, and other eight donors such as foreign embassies and international organizations and so on.

1.3 Study Areas

Islamabad and its surroundings (Karachi, Lahore, Peshawar and its suburbs) in Pakistan were selected as the study areas.

1.4 Study Team Members

The member of the Study Team is as follows;

(1) Ms. Etsuko Kita, MD. PhD.	Director of Expert Service Div. Bureau of International Cooperation International Medical Center of Japan Ministry of Health and Welfare
(2) Mr. Kazuo Hikita, MD.	Pediatrician, Bureau of International Cooperation International Medical Center of Japan Ministry of Health and Welfare
(3) Ms. Harumi Kitabayashi	Deputy Director First Medical Cooperation Div. Medical Cooperation Dept. Japan International Cooperation Agency
(4) Mr. Yasushi Nakamura	Consultant Overseas Consulting Dept. CRC Research Institute, Inc.
(5) Ms. Akiko Matsuyama	Consultant Overseas Consulting Dept. CRC Research Institute, Inc.

Appendix 1 shows the schedule of the Team.

2. Overview of Pakistan

2.1 Country Setting

Pakistan is situated in the northwestern part of the South Asian subcontinent. On its east and southeast lies India, to the north and northwest is Afghanistan, to the west is Iran and in the south, the Arabian Sea. Its area is about 796 thousand square kilometers (approximately two times larger than Japanese land area).

Pakistan is comprised of the provinces of Punjab, North West Frontier (NWFP), Balochistan, Sindh and the Federally Administered Tribal Areas (FATA) of the north and northwest. Each province is divided into administrative divisions, districts, tehsils and talukas, then, further into union councils and villages.

Table 1. Administrative Structure in Pakistan

	Divisions	Districts	Tehsils or Talukas	Union Councils	Villages
Balochistan	6	20	99	315	4,606
Punjab	8	29	84	2,392	25,272
Islamabad	—	—	—	—	—
Sindh	4	18	73	562	5,900
NWFP	6	17	33	655	9,322
FATA	—	7	—	—	—
NAs	1	5	13	105	700
AJK	2	6	16	180	1,644
Total	27	102	318	4,209	47,444

Note: NWFP = North West Frontier Province
FATA = the Federally Administered Tribal Areas
NAs = the Northern Areas
AJK = Azad Jammu and Kashmir

Source: Situation Analysis of Children & Women in Pakistan, 1992 UNICEF

Population of Pakistan is 117.32 million (January 1992), in which a large majority (97%) is Sunnis (Muslim) and the rest is Christians (about 3%). A minority of Hindu is also settled mainly in the border districts of Sindh while the Parsis (Zoroastrians) mostly settled in Karachi. The constitution of Pakistan guarantees the right of minorities to profess, practice and propagate their religion and every administrative position is open to them with the exception of the Head of State and the Prime Minister.

2.2 Population

The Population Census, which was due in 1991, has been delayed for some reason and its implementation has not yet been planned at the point of June 1993. Therefore, only the results of 1981 census and its consecutive projections are available as the newest population related statistics, as well as data of Pakistan Demographic and Health Survey (PDHS), conducted from December 1990 to May 1991 by the National Institute of Population Studies, is the newest for vital statistics.

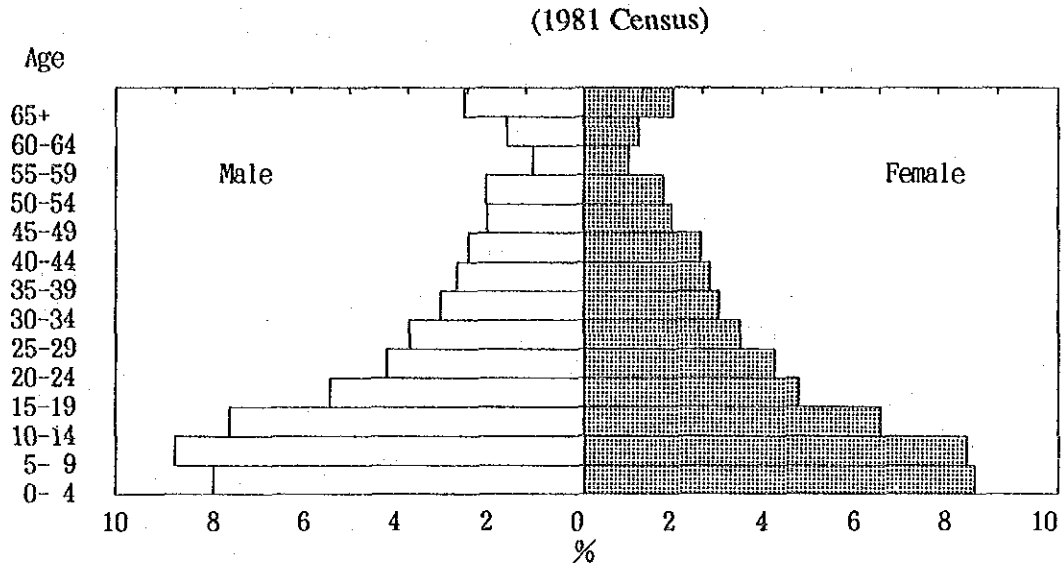
PDHS, which is the newest sample survey, has been conducted with the objective in providing data to evaluate population welfare programmes and maternal and child health services. 8,019 households were selected of the four provinces of Pakistan covering all urban and rural areas, and their response rate was about 90%, 7,193 households, in which 6,611 households were from reproductive aged women (15 - 49 years old). The primary emphasis of PDHS is put on data of population and health at national and provincial level, i.e. fertility, nuptiality, infant and child mortality, family size preference, immunizations, etc. It is further intended to serve as a source of demographic data for comparison with earlier surveys, particularly the 1975 Pakistan Fertility Survey (PFS) and the 1984-85 Pakistan Contraceptive Prevalence Survey (PCPS).

(1) Population Size

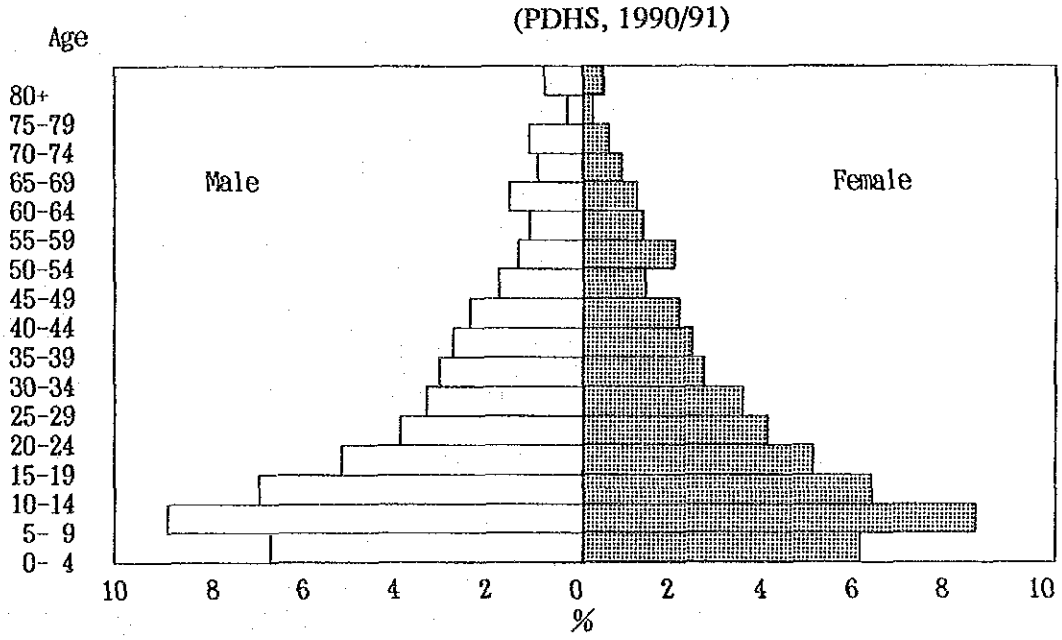
Pakistan is the ninth most populous country in the world after China, India, the former USSR, USA, Indonesia, Brazil, Japan, and Nigeria. The population of Pakistan was 117.32 million (61 million male and 56 million female) at the point of January 1 in 1992, which is 2.9% of average growth rate per annum. The present growth rate of population is estimated to be about 3.1%. At this speed of growth the total population of Pakistan by the year 2000 will reach about 150 million.

The population estimates in Pakistan is given in Table 2, and population pyramids of Pakistan is also shown in Figure 1.

Figure 1. Age-sex Pyramids of the Population (1981 census / PDHS 1990/91)



Source: Population Census Organization
Women and Men in Pakistan



Note: The percentage of the population below age five is smaller in the PDHS than that in 1981 census. This shift in age composition can be attributed partly to a reduction in fertility levels in the recent past. However, some of this shift is due to the omission of young children and displacement in their age, particularly in rural areas.

Source: Pakistan Demographic and Health Survey 1990/1991

Table 2. Population Estimates of Pakistan

	Year	Population
1951	(Census figure)	33,740,167
1961	(Census figure)	42,880,378
1972	(Census figure)	65,309,340
1981	(Census figure)	84,253,644
1988	(July 1st)	105,409,128
1989	(July 1st)	108,678,420
1990	(July 1st)	112,049,110
1991	(July 1st)	115,524,343
1992	(July 1st)	119,107,362

Note: For 1988 onwards the estimates have been prepared on the basis of PGS(1976-79) average growth rate which is 3.1015267% per annum by taking the 1981 census figures as base.

Source: Monthly Statistical Bulletin, March 1993, Federal Bureau of Statistics

The percentage distribution of population by age in 1981 Census shows that more than 40% of the population is composed of under 15 years old, which is a phenomenon often observed in the developing countries (see Table 3). Also, 43% of female population comes under reproductive age (15-49 years ord).

Table 3. Population by Age in 1981 (%)

Age	Total	Male	Female
0-4	15.32	14.39	16.36
5-9	16.02	15.81	16.25
10-14	13.17	13.59	12.69
15-19	9.46	9.73	9.16
20-24	7.59	7.59	7.59
25-29	6.68	6.71	6.64
30-34	5.63	5.54	5.72
35-39	5.12	4.92	5.33
40-44	4.71	4.50	4.95
45-49	3.75	3.74	3.76
50-54	3.61	3.80	3.41
55-59	1.96	1.99	1.93
60 +	6.99	7.68	6.21

Source: Population Census Organization
Economic Survey 1991-92

The sex ratio in Pakistan, in which male population exceeds female population at most of the age group, is rare among other countries (see Table 4).

Table 4. Sex Ratio by Age and Urban/Rural Area: 1981 Census
(Male population per 100 female population)

Age	Sex ratio		
	Total	Rural	Urban
Total	110.59	108.72	115.28
0 - 4	97.29	95.21	102.70
5 - 9	107.59	107.69	107.33
10 - 14	118.41	120.81	112.71
15 - 19	117.42	118.05	116.13
20 - 24	110.54	105.12	122.00
25 - 29	111.74	107.48	121.68
30 - 34	107.13	102.28	119.32
35 - 39	102.12	98.87	109.32
40 - 44	100.49	95.00	115.13
45 - 49	109.86	104.34	124.97
50 - 54	123.36	118.92	135.44
55 - 59	114.39	108.54	132.63
60 - 64	141.62	139.95	146.85
65 - 69	128.69	125.70	139.00
70 - 74	140.18	140.43	139.35
75 +	133.02	133.32	131.86

Source: Population Census Organization
Monthly Statistical Bulletin March, 1993

(2) Population Distribution and Population Density

The population of Pakistan is unevenly distributed among its various provinces. Punjab is the most densely populated province with about one-quarter (26%) of the total land area of the country and more than half (56%) of the total population. The next most densely populated provinces are Sindh, with less than one-fifth (18%) of the land area and 23% of the total population and North West Frontier Province (NWFP) and the Federally Administered Tribal Area (FATA) with 13% of the land area and 16% of the total population. Balochistan, which is the largest province by area (with 44% of the total land area), has the lowest proportion of Pakistan's total population (5%). The population density in the country increased from 43 persons/km^2 in 1951 to 106 persons/km^2 in 1981 and further to around 145 persons/km^2 in 1991.

Table 5 shows the area, population, population density and household size by province in Pakistan based on 1981 Census.

Table 5. Area, Population, Population Density and Household Size by Province: 1981 Census

Province	Area (km^2)		Population		Population density (Persons/km^2)	Household size
	Number	Percent (%)	Number	Percent (%)		
Pakistan	796,095	100.0	84,253,644	100.0	106	6.7
NWFP	74,521	9.4	11,061,328	13.1	148	6.8
FATA	27,220	3.4	2,198,547	2.6	81	8.3
Punjab	205,344	25.8	47,292,441	56.1	230	6.4
Sindh	140,914	17.7	19,028,666	22.6	135	7.0
Balochistan	347,190	43.6	4,332,376	5.1	13	7.3
Islamabad	906	0.1	340,286	0.4	376	5.7

Source: Monthly Statistical Bulletin, March, 1993, Population Census Organization

(3) Population Distribution by Urban and Rural Area

The percentage distribution of population by urban and rural area from 1947 onward is given in Table 6. It will be observed that the population of the urban area has increased in contrast with the decrease of rural population over times.

Table 6. Percentage Distribution of Population by Urban/Rural Areas

Census Year	Population (Nos 1,000)			Percentage (%)		
	Total	Urban	Rural	Total	Urban	Rural
1947(E)	32,500	5,003	27,497	100.0	15.4	84.6
1951	33,817	6,019	27,798	100.0	17.8	82.2
1961	42,978	9,655	33,324	100.0	22.5	77.5
1972	65,321	16,594	48,727	100.0	25.4	74.6
1981	84,254	23,841	60,412	100.0	28.3	71.7

E: Estimated

Source: Handbook of Population Census data, Population Census Organization, December, 1985, and Economic Survey 1991-92

Population distribution by province in 1981 census is given in Table 7.

Table 7. Population by Urban/Rural(%) 1981-Census

	Total (Nos 1,000)	Urban (%)	Rural (%)
Pakistan	84,254	28.3	71.7
Punjab	47,292	27.6	72.4
Sindh	19,029	43.3	56.7
NWFP	11,061	15.1	84.9
Balochistan	4,332	15.6	84.4
FATA	2,198	—	—
Islamabad	340	60.0	40.0

Source: Population Census Organization
Economic Survey 1991-92

(4) Fertility

1) Crude Birth Rate (CBR)

Table 8 shows the crude birth rates (CBRs) for selected years derived from various surveys.

The CBRs by residence indicate that fertility is slightly higher in rural areas than urban areas. The provincial differentials are also noting. The lowest CBR is observed for Sindh and the highest for Balochistan.

Comparing the CBRs from the 1984-85 PCPS and the 1990-91 PDHS, it is observed that there was a small decline of 1.6 points in the CBR between the two surveys. The CBR declined in each type of place of residence and each province, except for major cities and for Sindh where it exhibited a slight increase.

Table 8. Crude Birth Rates (per thousand)

Urban-rural residence and province	1990-91 PDHS	1984-85 PCPS	1975 PFS	1968-69 NIS
Residence				
Total urban	33.7	U	U	U
Major city	33.5	32.6	U	U
Other urban	34.0	38.5	U	U
Rural	35.6	37.1	U	U
Province				
Punjab	35.5	37.6	U	U
Sindh	32.8	32.0	U	U
NWFP	35.3	36.4	U	U
Balochistan	38.3	45.4	U	U
Total	35.0	36.6	40.5	39.0

U = Unknown; no information

Source: Population Planning Council of Pakistan (1976), Population Welfare Division (1986), Pakistan Demographic and Health Survey 1990-1991

2) Total Fertility Rate (TFR)

A historical series of age-specific fertility estimates from four national surveys is shown in Table 9.

Table 9. Age-specific Fertility Rates (1975-1991)

(per 1000 women)

Age group	1990-91 PDHS	1984-85 PCPS	1979-80 PLM	1975 PFS
15-19	84	64	99	131
20-24	230	223	283	275
25-29	268	263	313	315
30-34	229	234	263	259
35-39	147	209	188	188
40-44	73	127	101	77
45-49	40	71	48	11
Total fertility rate, 15-49	5.4	6.0	6.5	6.3

Source: Alam, Irfan and Farooqui [1984] and Population Welfare Division (1986) Pakistan Demographic and Health Survey 1990/1991

According to PDHS, TFR (6.3 ~ 6.5 children per woman in the 1970s) recorded a drop to 5.4 children. If current age-specific fertility rates were to remain unchanged in the future, an average woman in Pakistan would have 1.6 children by the time she reaches age 25, 2.9 children by age 30, more than four children by her thirty-fifth birthday, and 5.4 children by the end of her childbearing years. However, this fertility rate is still much higher when comparing with other Asian developing countries.

Differentials in fertility by type of place of residence are shown in Table 10. Overall, urban areas have lower fertility rates than rural areas and within urban areas major cities have lower fertility. Indeed, the average woman living in a large city can be expected to have nearly one child less than her rural counterpart (4.7 children compared to 5.6 children).

Table 10. Total Fertility Rate by Background Characteristics

Background characteristics	TFR
Residence	
Total urban	4.9
Major city	4.7
Other urban	5.2
Rural	5.6
Province	
Punjab	5.4
Sindh	5.1
Karachi	5.0
NWFP	5.5
Balochistan	5.8
Educational level attended	
No education	5.7
Primary	4.9
Middle	4.5
Secondary +	3.6
Total	5.4

Source: Pakistan Demographic and Health Survey 1990/1991

(5) Mortality

In Pakistan, the systematic study of trends, levels and differentials in mortality is impeded by a lack of reliable data. Although a system of vital registration has been in existence in the country since the last quarter of the 19th century, the recorded data suffer from errors in coverage and inaccuracies in the information provided. It is estimated that at the time of independence, the crude death rate (CDR) was around 25 to 30 per thousand population. The decline in mortality after the Second World War has been very rapid, with the CDR falling to about 10 to 12 deaths per thousand in the 1980s. This has been due inter alia to improvements in the availability of food through higher levels of production, the effective control of procurement and distribution of food grains, and the increasing pace of socioeconomic development. Although a gradual decline in mortality has been taking place in the country, health care coverage is still insufficient. Only 55% of the population has access to health services. A significant augmentation of services is necessary in order to reduce mortality, especially in rural areas.

Comparison of social indicators with selected Asian countries is shown in Table 11 and the change of fertility rate and mortality rate in Table 12.

Table 11. Comparison of Social Indicators

	Per capita income ($ per annum)	Life Expectancy at Birth (Years)	Infant Mortality Rate (per 1000 live births)	Crude Birth Rate (per 1000 population)	Crude Death Rate (per 1000 population)	Under five Mortality Rate (per 1000 live births)
Pakistan	370	55	106	46	12	166
Sri Lanka	430	71	20	21	6	43
Thailand	1220	66	28	22	7	49
China	350	70	30	22	7	43
India	340	59	95	31	11	149
Malaysia	2160	70	22	30	5	32
Philippines	710	64	42	30	7	73
Indonesia	500	61	64	27	9	119
Bangladesh	180	51	106	37	14	188
Nepal	180	52	124	41	15	197

Source: World Development Report 1991, UNICEF Facts and Figures 1990
Economic Survey 1991-92

Table 12. Birth Rates, Death and Natural Rates of Increase

Surveys	Birth Rate (per 100 persons)	Death Rate (per 100 persons)	Natural Rate of increase (%)
PDS 1988	41	11	3.0
PDS 1984-1988 (A)	43	11	3.2
PDS 1976-1979 (A)	42	11	3.1
PGE 1962-1965 (A)	42	15	2.7
PGE 1962-1965 (A)	52	18	3.4

A: Average.
Source: PDS, Economic Survey 1991-92

Demography and total fertility rate of selected countries in 1965 and 1988 are shown in Table 13.

Table 13. Demography and Fertility of Selected Countries in 1965 & 1988

	Crude Birth Rate (Nos 1,000)		Crude Birth Rate (Nos 1,000)		Total Fertility Rate	
Name of Country	1965	1988	1965	1988	1965	1988
India	45	32	20	11	6.2	4.2
Pakistan	48	46	21	13	7	6.6
Bangladesh	47	40	21	15	6.8	5.5
China	38	21	10	7	6.4	2.4
U.K.	18	14	12	11	2.9	1.8
U.S.A.	19	16	9	9	2.9	1.9
Japan	19	11	7	7	2	1.7
Republic of Korea	35	16	11	6	4.9	1.8

Source: World Development Report, Economic Survey 1991-92

2.3 Social Environment

(1) Family System

Pakistani household tends to be large with an average of six to seven persons (more than two generations) living together as a residential/consumption unit. The breakdown by place of residence shows that there are more members in urban households (7.2 persons) than in rural households (6.5 persons). Households in Pakistan are predominantly headed by males (only 7% of all households are headed by females.). It is because of the cultural tradition that men remain at their home after marriage and raise children, which naturally leads to family expansion with more than two generations. Population data on household composition is shown in Table 14.

Table 14. Household Composition

Household Characteristic	Total urban	Major city	Other urban	Rural	Total
Household head					
Male	92.1	93.0	90.9	93.2	92.9
Female	7.9	7.0	9.1	6.8	7.1
Total	100.0	100.0	100.0	100.0	100.0
Number of usual members					
1	1.9	1.3	2.7	3.4	2.9
2	4.6	4.3	5.1	6.6	6.0
3	6.4	6.2	6.7	7.8	7.4
4	8.5	9.6	6.9	9.9	9.5
5	11.6	11.6	11.7	12.5	12.3
6	13.5	14.1	12.7	13.3	13.4
7	12.4	12.7	12.0	11.6	11.8
8	12.6	11.6	14.0	11.6	11.9
9 +	28.5	28.7	28.2	23.2	24.8
Total	100.0	100.0	100.0	100.0	100.0
Mean size	7.2	7.2	7.2	6.5	6.7

Source: Pakistan Demographic and Health Survey 1990/91

(2) Marriage Pattern

One of the most salient aspects of marriage patterns in Pakistan is the frequency of marriage between blood relatives (i.e., consanguineous marriages). 61% of all marriages are consanguineous unions between first or second cousins; this is one of the highest rates reported anywhere in the world.

A comparison of the proportion of women who had never been married derived from the PDHS and the 1979-80 PLM indicates that substantial changes in marriage patterns took place between the two surveys. Although

the proportion of women never married rose for every age group, the changes are particularly striking at ages 20-29 from 6% to 14.4%, which has traditionally been the peak childbearing period for women in Pakistan (See Table 15).

However, once marriages were entered into, they tended to remain quite stable. The fact that marriage is a social obligation and nearly universal in Pakistan is supported by the finding that 98% of women age 35-49 had married.

Table 15. Current Marital Status (%)

	1990-91 PDHS							1979-80 PLM
Age	Never married	Married	Divorced	Widowed	Separated	Total	Number	Never married(%)
15-19	75.1	24.3	—	0.3	0.2	100.0	1720	72
20-24	39.4	56.9	0.6	0.1	0.7	100.0	1747	23
25-29	14.4	83.2	0.2	1.0	1.3	100.0	1745	6
30-34	4.3	92.4	0.5	1.5	1.2	100.0	1241	3
35-39	2.4	92.7	0.5	4.0	0.4	100.0	1005	2
40-44	2.4	92.8	0.1	4.2	0.5	100.0	865	1
45-49	2.1	90.8	0.2	6.5	0.5	100.0	630	1
Total	26.2	71.1	0.2	1.8	0.7	100.0	8953	32

— Less than 0.05 %
Source: Sather, Ali and Zahid(1984)
Pakistan Demographic and Health Survey 1990/1991

(3) Education

1) Literacy Rate

The comparative literacy rate in different censuses and the estimates for 1991-92 are given in Table 16.

Table 16. Literacy Rate (%)

	1961	1972	1981	1991-92 (Estimated)*
Both sexes	16.7	21.7	26.2	34.0
Male	25.1	30.2	35.1	45.5
Female	6.7	11.6	16.0	21.3

* Planning and Development Division
Source: Population Census Organization
Economic Survey 1991-92

According to 1981 Population Census the literacy rate was 26.2% (male 35.1% and female 16.0%). The rate for males has gone up to 45.5% and for females to 21.3% in 1991-92. However, the literacy rate of women is still among

the lowest level in the world, and the literacy rate in rural areas is much worse; especially, in Balochistan it is 1.8%

2) School Enrollment

Table 17 shows that 43% of males and 68% of females have never attended school. Overall, less than one-third of males (30%) and one-fifth of females (20%) have attended only primary school, while 16% of males and 7% of females were reported to have reached secondary school or higher. On average, males have completed 3.2 years of schooling, whereas females have completed only 1.6 years. The data indicate that males receive much more education than females. Such differentials are more prominent at higher levels of education.

Moreover, the urban-rural differentials in level of education is a serious matter. The urban-rural difference is undoubtedly due to a lack of facilities, unequal educational expenditure between urban and rural areas, or their inaccessibility in rural areas, while male-female differentials could be attributed to cultural norms and the social constraints faced by women. Punjab and Sindh have relatively low percentages of females who have received no education, while in NWFP and Balochistan more than 80% of females have never been to school. The level of education attainment is much higher for males than for females in all provinces, but the disparity is particularly striking in NWFP.

Table 17. Educational Level

Percent distribution of the male and female by background characteristics and educational levels, 1990-91.

Background characteristics	No Education	Primary school	Middle school	Secondary school+	Missing	Total	Mean Years
Province							
Punjab							
Male	40.8	30.2	12.0	16.9	0.1	100.0	3.4
Female	63.7	22.2	6.1	7.7	0.2	100.0	1.8
Sindh							
Male	44.0	31.5	7.8	16.0	0.7	100.0	3.2
Female	66.2	20.2	4.6	8.2	0.8	100.0	1.7
NWFP							
Male	46.7	27.6	11.0	14.4	0.2	100.0	3.0
Female	81.6	12.2	3.0	2.9	0.3	100.0	0.8
Balochistan							
Male	63.4	20.8	6.6	7.1	2.0	100.0	1.7
Female	88.5	7.1	1.4	1.2	1.8	100.0	0.4
Total							
Male	43.1	29.8	10.7	16.0	0.3	100.0	3.2
Female	67.6	19.9	5.2	6.9	0.4	100.0	1.6

Note: Excludes 14 males and 10 females whose ages are unknown.
Less than 0.05%

Source: Pakistan Demographic and Health Survey 1990/1991

(4) Labour Force

During 1991-92 labour force is estimated at 33.82 million (3.1% increase over last year), out of which 32.76 million persons are employed while 1.06 million are reported unemployed. Out of the estimated labour force of 33.82 million, 24.70 million is rural and 9.12 million urban. The overall unemployment rate is recorded at 3.13% while for urban it is 4.58% and for rural 2.60%.

Agriculture is the main absorbent of the labour force (51.15%) followed by industry (12.69%) and trade (11.93%). Details are given in Table 18 and table 19.

Table 18. Labour Force and Employment

	1989-90 (Estimated)	1990-91	1991-92 (Estimated)
Population (Million)	110.36	113.78	117.32
Population Working age	73.61	75.90	78.25
Labour Force (Million)	31.82	32.81	33.82
Employed Labour Force (Million)	30.82	31.78	32.76
Unemployed Labour Force (Million)	1.00	1.03	1.06
Unemployment Rate (%)	3.13	3.13	3.13
Labour Force Participation Rate	28.83	28.83	28.83

Source: Estimated on the basis of Labour Force Survey 1987-88, Economic Survey 1991-92

Table 19. Sectoral Distribution of Employed Labour Force

(%)

Sector	1963-64	1986-87	1988-89	1989-90	1990-91(E)
Total	100.00	100.00	100.00	100.00	100.00
Agriculture	60.47	49.24	51.15	51.15	51.15
Manufacturing	13.60	14.23	12.69	12.69	12.69
Construction	1.44	6.01	5.38	5.38	5.38
Transport	2.04	5.25	4.89	4.89	4.89
Trade	7.60	12.05	11.93	11.93	11.93
Others	14.85	13.22	12.95	12.96	12.96

E: Estimated

Source: Labour Force Surveys of Respective Years, Economic Survey 1991-92

The male participation rate is quite comparable with other developing countries. The female participation rate is exceptionally low because of sociocultural factors preventing women from participating outside activities, under-reporting of female workers, especially in the non-wage sector, as well as

non-availability of suitable jobs. These factors not only limit female entry into areas of economy and development but also the social interaction in their daily life. The comparable position of population and activity rates by sex of selected countries is given in Table 20.

Table 20. Participation Rates in Selected Countries

Country	Year	Population (in Million)	Activity Rate (%) Male	Female	Total
Pakistan	1986-87	102.2	49.6	7.0	29.4
Bangladesh	1983-84	95.2	53.5	5.4	29.9
India	1981	665.3	52.7	19.8	36.8
U.K.	1981	55.0	59.5	35.9	47.3
Germany (FRG)	1985	61.0	60.3	35.9	47.6
New Zealand	1986	3.3	57.9	40.7	49.2
Japan	1986	121.4	60.7	38.8	49.6
U.S.A.	1986	41.1	57.1	42.5	49.6
China (PR)	1982	1003.8	57.3	47.0	52.3

Source: ILO Yearbook of Labour Statistics, 1987
Economic Survey 1991-92

2.4 Statistics on Maternal and Child Health

The up-dated current data on maternal and child health in Pakistan are quoted from Pakistan Demographic and Health Survey (PDHS). Therefore, the followings are on survey results of PDHS.

(1) Antenatal Care

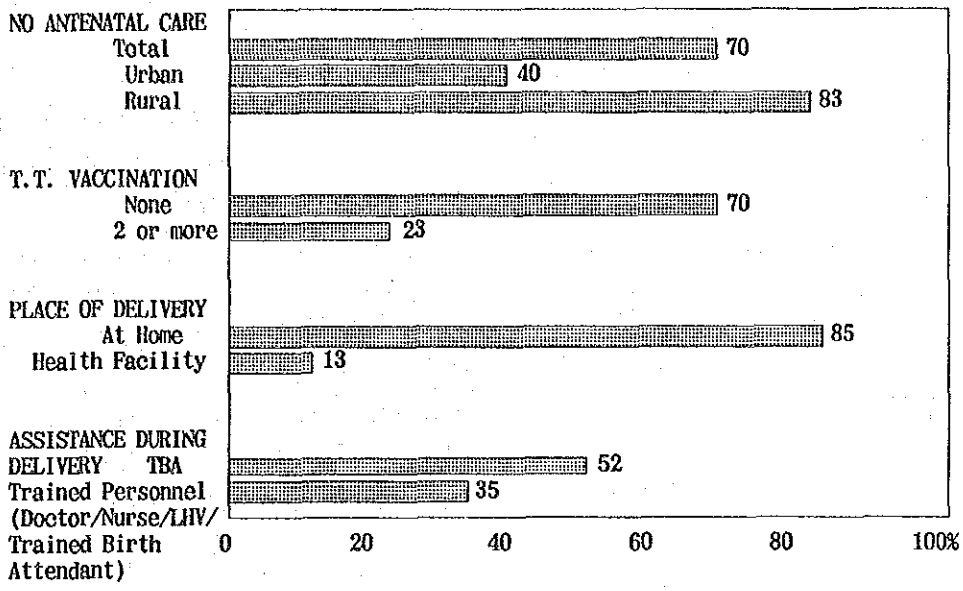
Table 21 and Figure 3 present background information on antenatal care for births in the five years preceding the survey. For 70% of these births(6.407 samples), no antenatal care was received during pregnancy. When care was received, 23% was provided by a doctor, 3% by a nurse, Lady Health Visitor, or Family Welfare Worker, and 4% by either a trained or a traditional birth attendant. The percentage of births with no antenatal care increased with the birth order of the mother and was highest for women age 35 and over. Conversely, mothers receiving care from a doctor were slightly younger and of lower parity.

Table 21. Antenatal Care (1990-91)

Background characteristics	Antenatal care provider							
	Doctor	Nurse/ LHV[1]	Trained birth attendant	TBA	Other	No one	Don't know/ missing	Total
Residence								
Total urban	51.3	5.2	1.5	1.6	—	39.6	0.8	100.0
Major city	63.9	3.3	1.5	1.5	—	28.9	0.9	100.0
Other urban	34.1	7.8	1.5	1.7	0.1	54.1	0.7	100.0
Rural	9.6	2.2	0.8	2.9	—	83.0	1.4	100.0
Province								
Punjab	17.7	3.8	0.6	1.8	0.1	74.8	1.4	100.0
Sindh	43.8	1.8	0.3	4.0	0.1	48.5	1.5	100.0
NWFP	15.3	2.0	0.7	0.5	—	81.3	0.2	100.0
Balochistan	7.1	3.2	13.9	11.8	—	62.5	1.5	100.0
Educational level attended								
No education	14.0	2.6	1.2	2.7	—	78.0	1.5	100.0
Primary	33.5	4.3	0.9	1.7	—	58.9	0.6	100.0
Middle	49.3	7.3	0.5	1.5	—	41.1	0.3	100.0
Secondary +	79.3	3.7	0.5	1.5	0.2	14.6	0.2	100.0
Total	22.5	3.1	1.1	2.5	—	69.6	1.2	100.0

Figures are for births in the period 1-59 months preceding the survey.
— Less than 0.05%
6.407 samples
[1] Includes Family Welfare Worker.
Source: Pakistan Demographic and Health Survey 1990/91

Figure 2. Antenatal Care, Place of Delivery, and Assistance During Delivery



Note: Based on births in five years preceding the survey
Source: Pakistan Demographic and Health Survey 1990/1991

No antenatal care was received for 83% of the births in rural areas and 40% in urban areas (Figure 2). Regionally, women in the North West Frontier Province (NWFP) had the lowest level of care (81% received no antenatal care), followed by Punjab (75%), Balochistan (63%) and Sindh (49%). Women in Balochistan relied more on traditional and trained birth attendants for antenatal care (26%) than women in other regions (all less than 5%). More educated women were considerably more likely to receive antenatal care from a doctor. For 78% of births to mothers with no education, no antenatal care was received by the mother. In almost four of five births (79%) occurring to women with secondary education, antenatal checkups were done by doctors. Antenatal care provided by physicians was highest in urban areas (51%), particularly among residents of major cities (64%).

(2) Place of delivery and assistance during delivery

Eighty-five percent of the births occurring during the five years preceding the survey took place at home (see Table 22). This proportion has declined very little since the PCPS in 1984-85, when 92% of the live births occurred at home. Though delivery in a health facility was less common than receiving antenatal care, more than five-sixths of all births which occurred in health facilities were to women who had received antenatal care. This may be due to differences in service availability or to complications during pregnancy which may lead a woman to seek care.

It may also suggest that antenatal visits give the provider an opportunity to develop rapport with the woman, increasing her willingness to seek proper care at the time of delivery. The proportion of births taking place at health facilities was highest for residents of Sindh, and for those living in urban areas. Home births were more than twice as common among women with no education as among those with secondary or higher levels of educational attainment.

69% of deliveries of all live births were attended by traditional or trained birth attendants, while 19% were assisted by a doctor or nurse (see Table 23).

Table 22. Place of Delivery (%)

Background characteristics	Place of Delivery				
	Health facility	At Home	Other	Don't know/ missing	Total
Residence					
Total urban	32.6	66.5	—	0.8	100.0
Major city	46.1	53.0	0.1	0.9	100.0
Other urban	14.3	85.0	—	0.7	100.0
Rural	4.8	93.6	0.1	1.5	100.0
Province					
Punjab	10.5	88.0	0.1	1.4	100.0
Sindh	27.8	70.4	0.1	1.7	100.0
NWFP	6.6	93.0	0.1	0.3	100.0
Balochistan	2.5	96.3	—	1.2	100.0
Education level attended					
No education	6.7	91.7	0.1	1.5	100.0
Primary	17.4	82.0	—	0.6	100.0
Middle	43.4	56.3	—	0.3	100.0
Secondary +	58.6	41.0	—	0.4	100.0
Antenatal care visits					
0	2.9	96.8	0.1	0.1	100.0
1-3	22.7	77.3	—	—	100.0
4 +	57.8	42.0	0.1	0.1	100.0
Don't know/missing	4.4	54.9	—	40.7	100.0
Total	13.4	85.2	0.1	1.3	100.0

Note: Figures are for births in the period 1-59 months preceding the survey.
— Less than 0.05%
Source: Pakistan Demographic and Health Survey 1990/91

Table 23. Assistance during Delivery (%)
(1990-91)

Background characteristics	Doctor	Nurse/ LHV[1]	Trained birth attendant	TBA	Other	No one	Don't know/ missing	Total
Residence								
Total urban	30.7	11.6	18.3	35.2	2.7	0.7	0.8	100.0
Major city	41.8	9.3	18.6	27.4	1.6	0.5	0.8	100.0
Other urban	15.5	14.8	17.9	45.7	4.3	1.0	0.8	100.0
Rural	4.2	4.0	15.9	59.8	12.3	2.0	1.7	100.0
Province								
Punjab	9.8	6.6	19.8	56.4	4.6	1.1	1.7	100.0
Sindh	24.6	7.6	7.4	54.6	3.1	1.3	1.3	100.0
NWFP	7.7	3.9	8.8	33.0	42.5	3.8	0.3	100.0
Balochistan	3.1	4.4	45.1	38.2	3.5	3.7	2.0	100.0
Education level attended								
No education	6.1	5.0	16.9	57.4	11.1	1.9	1.6	100.0
Primary	15.1	10.4	21.5	48.4	3.3	0.1	1.3	100.0
Middle	39.1	13.0	12.7	29.9	3.4	0.2	1.7	100.0
Secondary +	57.2	11.6	10.1	17.1	2.8	1.0	0.2	100.0
Antenatal care visits								
0	3.2	3.6	17.5	60.9	12.2	2.1	0.4	100.0
1-3	19.1	14.5	18.5	43.3	4.0	0.5	—	100.0
4 +	52.3	13.1	11.7	21.3	1.4	0.1	0.1	100.0
Don't know, missing	5.1	2.0	11.7	34.8	4.1	2.0	40.2	100.0
Total	12.4	6.4	16.6	52.2	9.4	1.6	1.5	100.0

Note: If the respondent mentioned more than one attendant, only the most qualified attendant is considered.
— Less than 0.05%
[1] Includes Family Welfare Worker
Source: Pakistan Demographic and Health Survey 1990/91

(3) Characteristics of Deliveries

3% of births were delivered by caesarean section (see Table 24). Only 2% of births were reported as premature; however, exclusion of stillbirths from this figure results in a significant underestimation of prematurity overall. In addition, it is uncertain how accurately mothers are able to identify prematurity. Most of the deliveries took place at home, hence 9 of 10 (88%) births were not weighted at the time of birth. Three-quarters (76%) of the live births were reported to be of average of larger size.

Table 24. Characteristics of Delivery (1990-91)

Delivery Characteristics	Percent	Most recent birth: Average duration of labour (in hours)	Most recent birth: No. of birth
C-section delivery			
C-section	2.7	11.8	99
Not C-section	95.5	7.7	3679
Missing	1.8	*	21
Total	100.0	7.8	3800
Premature birth			
On time	96.7	7.7	3723
Premature	1.9	12.9	70
Don't know	1.5	*	7
Total	100.0	7.8	3800
Birth weight			
Less than 2.5kg	1.2	12.1	50
2.5kg or more	6.3	7.8	252
Don't know, missing	4.2	9.4	97
Not weighted	88.3	7.7	3401
Total	100.0	7.8	3800
Size at birth			
Very small	6.2	10.7	271
Smaller than average	15.9	7.9	668
Average or larger	76.3	7.5	2854
Don't know, missing	1.5	*	6
Total	100.0	7.8	3800

Note: Figures are for births in the period 1-59 months preceding the survey.
* Based on fewer than 25 unweighted cases, number not shown
Source: Pakistan Demographic and Health Survey 1990/91

The median interval since the previous birth is 29 months. One of every three births occurred less than 24 months after the previous birth and half of those had very short birth intervals of less than 18 months. Another one-third of births (36%) had previous birth intervals of two years and the remaining one-third (31%) has intervals of three years or more. As expected, children whose prior sibling had died before the time of the survey had the shortest previous birth intervals. A majority of children whose prior sibling had died were born less than 24 months after the birth of the previous child.

(5) Age at first birth

The majority of women in Pakistan did not have their first birth until after their twentieth birthday. Childbearing before age 15 has always been uncommon and it is becoming increasingly rare over time. In recent years, there has been a rapid decline in the extent to which women begin childbearing

during their teenage years. For example, whereas 42% of women age 25-29 had their first birth before age 20, only 30% of women age 20-24 had their first child that early.

Differentials in the age at first birth are shown in Table 25. The median age at first birth for all women age 25-49 is 21.3 years. Overall, there is little variation in the median age at first birth by place of residence or by education, except for women who have attended the highest education level. For the youngest age group, the median age at first birth is lowest in rural areas, in Balochistan and among women with little or no education. These patterns, however, are not regular across all age groups. The most consistent pattern is the late initiation of childbearing among women who have gone beyond middle school.

Table 25. Age at First Birth by Background Characteristics

	Current Age					Ages
	25-29	30-34	35-39	40-44	45-49	25-49
Residence						
Total urban	21.7	20.9	20.8	21.5	21.4	21.3
Major city	21.8	21.0	20.6	20.7	21.3	21.1
Other urban	21.6	20.8	21.2	22.1	21.5	21.4
Rural	20.6	20.9	22.0	21.7	23.2	21.3
Province						
Punjab	21.6	21.0	21.6	21.8	22.7	21.6
Sindh	19.8	20.6	21.2	21.0	21.7	20.6
NWFP	21.2	20.8	21.0	21.3	23.6	21.4
Balochistan	18.3	20.4	22.0	22.7	25.3	20.3
Education level attended						
No education	20.3	20.5	21.3	21.6	22.8	21.0
Primary	20.7	21.5	21.5	20.0	21.0	21.1
Middle	22.1	20.2	19.7	20.6	23.2	21.1
Secondary +	25.0	24.7	23.0	23.3	22.5	24.0
Total	21.0	20.9	21.4	21.7	22.6	21.3

Source: Pakistan Demographic and Health Survey 1990-1991

Maternal deaths, associated with complications of pregnancy and childbirth, are quite high. Four of five deliveries are attended by traditional birth attendants or elderly women. Repeated and closely spaced pregnancies and births coupled with high parity pregnancies are found to result in a high incidence of maternal deaths. In Pakistan it is estimated that around 500 maternal deaths occur per hundred thousand live births.

However, the maternal mortality rate in Pakistan is still not reliably quantified, and estimates range from 190 to 1700 deaths per 100,000 live births. The UN

Population Division uses a figure of 500 per 100,000. At this figure, around 20,000 women die in childbirth every year. Such rates are considered to be among the highest in the world, and similar to or higher than those of Pakistan's South Asian neighbours.

Pakistani women, especially those of childbearing age, are known to have higher mortality rates than men. One result is that Pakistan is one of the few countries in the world where female life expectancy is equal to or lower than that of men. The immediate causes of maternal deaths are the same as for women the world over; haemorrhage, septicaemia, toxaemia, obstructed labour and abortion. Together with anaemia these account for 80% of all maternal deaths.

2.5 Statistics on Infant and Child Mortality

Since independence in 1947, Pakistan has experienced steady but modest declines in rates of mortality at all ages. Yet early childhood mortality remains high and more than one tenth children die before their first birthday. Accuracy of estimated figures varies depending on sources for the lack of appropriate records on fertility and mortality. The most recent source of child survival data before the 1990-91 PDHS was the multi-round Pakistan Demographic Survey (PDS), which estimated infant mortality at 110 per thousand live births for the 1984-88 period.

(1) Levels and Trends in Infant and Child Mortality

Infant and child mortality rates for three six-year periods preceding the PDHS are shown in Table 26. The estimated infant mortality rate for the most recent period (0-5 years preceding the survey) is 91 per 1000 live births, with 57% of infant deaths occurring in their first four weeks f life. Under-five mortality has fallen 18%, from 143 to 117 per thousand in the period from 12-17 years to 0-5 years before the survey. Disproportionate gains were made in survival among children age 12 to 59 months (28%), while neonatal (19%) and postneonatal (11%) survival have shown more modest improvements.

More than half of infant mortality (neonatal plus postneonatal mortality) and 45% of under-five mortality occurs during the first month of life. Thus, there exists considerable scope for improving child survival during infancy in Pakistan through programmes designed to improve maternal health and pregnancy outcome.

Table 26. Infant and Child Mortality
Infant and child mortality rates for three six-years periods preceding the survey (1990-91)

(per 1000 live births)

Years preceding survey	Neonatal mortality	Postneonatal mortality	Infant mortality	Under-five mortality
0-5	51.4	39.1	90.5	117.4
6-11	56.7	40.0	96.7	123.6
12-17	63.4	43.7	107.1	143.5

Source: Pakistan Demographic and Health Survey 1990-1991

Table 27 presents infant and child mortality rates by urban-rural residence, province of residence, level of mother's education, and use of basic maternal health services. Under-five mortality is 29% lower in urban Pakistan (94 per thousand) than in the rural setting (132%). The urban-rural differential exists at

all ages, which suggests that both social factors and access to health services are important in the greater risk of death among rural children.

Among regions, under-five mortality is lowest in NWFP (98 per thousand) and highest in Punjab (133 per thousand). The higher under-five risk in Punjab is largely due to higher mortality during infancy (104 per thousand). Infant mortality was estimated to be lowest in Balochistan, but this should be interpreted with caution since sampling errors are relatively high in Balochistan, as well as in NWFP. Moreover, the unusually low rate of infant mortality relative to child mortality in Balochistan as well as a deficit of births in the year preceding the survey, suggests that there was selective underreporting of infant deaths in that province.

Child survival changes in Pakistan are closely related to a mother's level of education. Children of mothers with no education experience over two and a half times (159%) the level of under-five mortality as children of women educated to the secondary level or higher. Indeed, each incremental change in education is associated with significant gains in survival.

Use of basic maternal health services is associated with child survival chances. Under-five mortality is 67% higher (133 per thousand) among children born to women who did not receive antenatal services and did not receive delivery care from a trained health professional compared to children whose mothers received both services.

Table 27. Infant and Child Mortality by Background Characteristics (1990-91)

(per 1000 birth)

Characteristics of mother	Neonatal mortality	Postneonatal mortality	Infant mortality	Under-five mortality
Residence				
Total urban	40.8	33.8	74.6	93.6
Major city	39.7	34.1	73.8	91.9
Other urban	42.1	33.5	75.6	95.9
Rural	58.6	43.7	102.2	131.9
Province				
Punjab	58.4	45.7	104.1	132.8
Sindh	44.4	36.1	80.5	105.6
NWFP	48.2	31.3	79.6	97.7
Balochistan	46.1	26.3	72.4	101.1
Education level attended				
No education	56.1	42.5	98.6	128.4
Primary	49.8	40.6	90.4	107.0
Middle	43.5	36.7	80.2	87.4
Secondary +	26.9	18.9	45.8	49.5
Medical maternity care[1]				
No antenatal or delivery care	57.1	47.2	104.4	132.6
Either antenatal or delivery care	32.5	32.4	64.9	103.1
Both antenatal and delivery care	46.7	22.8	69.5	79.3
Total	53.3	40.7	94.0	120.4

Note : The month of interview is excluded from analysis.

[1] Rates are for the five-year period preceding the survey. Medical care is that given by a doctor, nurse or trained midwife, or received in a hospital,clinic, health centre or health unit.

Source: Pakistan Demographic and Health Survey 1990/91

Table 28 presents differentials in infant and child mortality by various characteristics of the mother and child. The expected biological effects of sex on age-specific mortality are observed. Neonatal mortality is 30% higher among males than females; however, mortality during the postneonatal period is little affected by the sex of the child. Child mortality is 66% higher among females than males, which suggests that there may be some gender-related differences in child rearing practices that favour boys over girls.

Table 28. Infant and Child Mortality by Demographic Characteristics (1990-91)

(Births per 1,000)

Demographic/ biological characteristics	Neonatal mortality	Postneonatal mortality	Infant mortality	Under-five mortality
Sex of child				
Male	60.1	42.0	102.1	121.9
Female	46.1	39.3	85.5	118.9
Mother's age at birth				
< 20	70.1	51.2	121.3	144.8
20-29	50.9	40.0	90.8	116.7
30-39	48.5	35.4	83.9	113.0
40-49	56.1	50.4	106.5	130.7
Birth order				
1	60.9	37.7	98.5	110.2
2-3	45.0	38.6	83.6	113.0
4-6	51.9	43.0	94.8	125.2
7 +	63.4	43.5	106.9	135.7
Previous birth interval				
< 2 years	74.1	58.8	132.9	170.1
2-3 years	38.9	26.3	65.2	89.0
4 years or more	13.5	16.3	29.7	44.3
Birth size[1]				
Very small	90.6	40.7	131.3	157.8
Small	41.9	58.0	99.9	120.5
Average or larger	40.3	31.5	71.8	97.4

Note: The month of interview is excluded from analysis.
[1] Rates are for the five-year period before the survey.
Source: Pakistan Demographic and Health Survey 1990-1991

The pace of childbearing has a powerful effect on the survival changes of Pakistani children. Under-five mortality is four times higher among children born after an interval of less than two years than among children born after an interval of four years or more. The birth interval effect is marked for mortality in each age group, although the strength of the association diminishes with increasing age of the child. Birth interval length strongly affects survival changes throughout the first five years of life. This may indicate that the relationship in Pakistan is not simply related to maternal depletion and pregnancy outcome (which would be expected to specifically influence early infant mortality), but may also be associated with constraints on breast-feeding and other nutritional inputs, child care, and the use of health services.

(2) Causes of Death in Early Childhood

Table 29 gives the percentage of deaths in the five years preceding the survey by reported causes of death and the age group of the child at death.

Table 29. Causes of Death in Early Childhood (%)

Disease or cause	Age at death			
	Less than 1 month	1-11 month	12-59 months	Total
Diarrhoea	5.5	28.3	26.6	16.9
Vomiting	4.7	10.6	15.0	8.4
Pneumonia	3.7	7.5	3.1	5.0
Cough	3.7	10.0	10.8	7.0
Fever	15.9	37.6	39.0	27.2
Convulsions	7.7	5.7	8.2	7.0
Measles	2.0	3.2	11.1	3.8
Others	67.4	32.0	30.1	49.0

Note: — Less than 0.05%
Source: Pakistan Demographic and Health Survey 1990/1991

Some conclusions can tentatively be drawn from the figures on causes of death in childhood. First, over one-quarter (27%) of the under-five deaths were associated with fever, and about 17% were associated with diarrhoea.Cough, vomiting, convulsions, pneumonia, and measles were each reported for 4 to 8% of deaths, although in the case of measles, it is unlikely that the few deaths reported during the neonatal period were actually associated with measles. Deaths associated with reported convulsions may represent cases of tetanus during the neonatal period, and after the neonatal period often would suggest various conditions involving high fever of hypoxia such as meningitis, pneumonia, and other acute infection.

Percentage distribution of infant mortality by age and areas is shown in Table 30.

Table 30. Percentage Distribution of Infant Mortality by Age and Areas

Age of Infant	All areas			Urban area	Rural area
	Female	Male	Total	Total	Total
			1988		
Total	100.0	100.0	100.0	100.0	100.0
under 1 day	—	0.1	0.1	0.3	—
1 - 6 days	33.2	34.7	34.0	32.1	34.3
7 - 27 days	19.2	22.8	21.1	16.6	22.5
1 - 11 months	47.6	42.4	44.8	50.1	43.3

Source: Pakistan Demographic Survey, FBS
Women and Men in Pakistan (A Statistical Profile) 1992

Available evidence suggests that slightly more than one-third (36%) of all deaths occur during infancy in Pakistan. Moreover, one-third of all infant deaths occur within one week of birth. An additional 22% of deaths occur in the second to four week. In other words, more than half of infant deaths are neonatal deaths that occur within four weeks of birth.

2.6 Contraception

Regarding current contraceptive use, 12% of currently married women reported that they were using some method to delay or prevent pregnancy. Three-fourths of the current users were using a modern method and one-fourth a traditional method. The most widely used modern method was female sterilization, followed by the condom and the IUD while periodic abstinence and withdrawal are the most common methods among traditional methods (see Table 31).

Table 31. Current Use of Contraception

Contraceptive Method	Age of Women							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Any method	2.6	6.3	9.6	13.4	20.4	15.8	11.8	11.8
Any modern method	1.9	3.8	7.4	9.6	15.8	12.8	10.3	9.0
Pill	0.2	0.8	0.8	0.7	0.9	0.8	—	0.7
IUD	0.4	0.7	1.8	1.9	1.4	1.1	0.4	1.3
Injection	0.4	0.4	0.4	0.6	1.6	1.1	1.1	0.8
Vaginal method	—	—	—	—	0.1	—	—	—
Condom	0.8	1.5	3.6	3.6	3.8	1.8	1.9	2.7
Female sterilization	—	0.5	0.9	2.7	7.9	8.0	6.8	3.5
Male sterilization	—	—	--	0.1	0.2	—	—	—
Any traditional method	0.7	2.5	2.3	3.8	4.5	3.0	1.5	2.8
Periodic Abstinence	0.5	0.7	1.0	1.6	2.6	1.7	0.4	1.3
Withdrawal	0.1	1.1	1.0	1.9	1.8	1.3	0.3	1.2
Other	—	0.6	0.3	0.3	0.2	—	0.8	0.3
Not currently using	97.4	93.7	90.4	86.6	79.6	84.2	88.2	88.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

— Less than 0.05%
Source: Pakistan Demographic and Health Survey 1990/1991

A large urban-rural differential prevails in each method (see Table 32). The proportion of married urban women using a modern method (19%) is almost four times greater than that of rural women (5%). In terms of provincial variation, Balochi women reported the lowest level of current use-only 2% were using modern methods, which is consistent with the low level of contraceptive knowledge among Balochi women. In contrast, 10% of women in Punjab were using modern methods.

In both rural and urban areas, current use of any method has increased since the 1984-85 PCPS (Pakistan Contraceptive Prevalence Survey), which showed

a rate of 16% for urban and 5% for rural areas. On the other hand, however, rates of women not using any contraception are still high, 74% in urban areas and 94% in rural areas.

Table 32. Current Use of Contraception by Background Characteristics

	Residence		Province			
	Urban	Rural	Punjab	Sindh	NWFP	Balochistan
Any method	25.7	5.8	13.0	12.4	8.6	2.0
Any modern method	18.7	4.8	9.8	9.1	7.6	1.7
Pill	1.4	0.4	0.6	0.7	1.3	0.7
IUD	2.0	0.9	1.5	0.9	1.1	0.5
Injection	1.2	0.6	0.8	0.4	1.1	0.1
Vaginal method	—	—	—	—	0.1	—
Condom	6.7	1.0	3.0	3.4	0.8	0.2
Female sterilization	7.3	1.9	3.8	3.5	3.2	0.3
Male sterilization	0.1	—	0.1	—	—	—
Any traditional method	7.1	1.0	3.2	3.4	1.0	0.3
Periodic abstinence	3.4	0.4	1.4	1.7	0.6	0.2
Withdrawal	3.0	0.4	1.5	1.3	0.3	0.1
Other	0.6	0.2	0.3	0.4	0.1	—
Not currently using	74.3	94.2	87.0	87.6	91.4	98.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

— Less than 0.05%
Source: Pakistan Demographic and Health Survey 1990/91

3. Population Welfare Programme

Pakistan has started to deal with issues of population and family planning (FP) since the early 1950s. The former Population Division of the Ministry of Planning and Development was separated from the Ministry and formed into the present Ministry of Population Welfare in 1990. Since restraining the rapid population growth has been the most critical issue in the past five year plans(1955/60 through 1988/93), various policies and approaches such as promotion of small-member families and utilization of modern family planning have been adopted. However, due to lack of consistent commitment from the government, unwillingness to participate in family planning service or contraceptive devices by other sectors is predominant, especially in rural areas. In fact, a number of facilities providing family planning service are concentrated in urban areas.

Despite various programs on family planning have been executed in the past three decades, the population growth rate has not been reduced so much and the utilization rate of family planning has still remained low.

The high birth rate is ascribable in part to social and cultural factors, such as the high illiteracy rate and lower level of education(especially of female), poverty, high infant and maternal mortality rates, insufficient services of health facilities, and unequal social status of women. Efforts to promote family planning have been made for many years, however, it was only approximately one-third of the population who were receiving family planning service until quite recently.

In the opening address at the National Population Conference held on July 11, 1991, Prime Minister of Pakistan, Nawaz Sharif, expressed the political stance on population growth and asked every country and provincial government for positive and concerted support to the population welfare program.

In January 1993, Pakistan government has dispatched a high-level delegation to Indonesia, which is also a Muslim country, for the study of its successful population welfare programme.

3.1 History and Programme

3.1.1 History

Family Planning activity in Pakistan has been started as a private effort along with the setting of FPAP (Family Planning Association of Pakistan) in 1953.

The main shifts of policy and strategy in Population Welfare Programme (1953-1991) in Pakistan are summarized as follows:

1953	Family planning activities begin in large cities under the auspices of the Family Planning Association of Pakistan(FPAP).
1954	Government planners express their concern over high population growth rate and allocate Rs.0.5 million in the First Five Year Plan(1955-60).
1960-1965	FP activities are conducted through the health sector.
1965-1970	An independent Family Planning Council and Boards are set up under the Ministry of Health and each provincial health department respectively to carry out the Family Planning Programme. Part-time Dais(Traditional Birth Attendant) are hired for outreach activities; part-time contraceptive sales agents are appointed; targets and incentives of IUD are set. Mass media as a device to promote IEC are used. Field strategy is revised, Continuous Motivation System (CMS) is introduced as a pilot programme.
1973-1974	CMS is extended on a nationwide basis; part-time Dais is replaced by full-time male/female motivation teams.
1974-1976	Contraceptive Inundation Scheme has been introduced on the assumption that contraceptive supply would promote the objective of family planning.
1977-1980	Family Planning Council and Boards are abolished and replaced by the Population Welfare Division, under the Ministry of Health in 1977. Programme and all PWP activities at provincial and district levels are federalized. All the program activities are suspended during the political turmoil in the country.
1981	CMS is abandoned: teams consisted of both male and female workers are disbanded, and the family planning work force is reduced from 16,000 to 8,500. The Population Welfare Division is transferred from the Ministry of Health to the Ministry of Planning and Development.
1978-1983	The Family Planning program is broken into 36 projects, each of which is comprised of individual government approval, funding and implementation schedule.

1981-1984 The program is shifted into a more broad-based, linked to other development sectors, multi-sectoral strategy.

1983-1988 The program is again defederalized, which transfers the jurisdiction of implementation to the provinces, i.e.; service delivery, field supervision, program monitoring and local information, education and communication activities.

The federal government sets the policy to implement the followings; planning, targets, training, procurement, storage, the seeking of foreign funding, the social marketing of contraceptives, information, education and communication, monitoring, research, and evaluation, and funds to non governmental organizations (NGOs).

1984 The Non Governmental Organization Coordinating Council is established to coordinate the work of nongovernmental organizations and to provide more flexible funding.

1985 Decision of ECNEC(Executive Committee of National Economic Council) mandates that all health outlets provide family planning services. Training of staff and supply of contraceptives are made under the responsibility of Population Welfare Division.

1986 SMC(Social Marketing of Contraceptives) program is introduced.

1990 The PWP is moved from the Ministry of Planning and Development and is made into the Ministry of Population Welfare, given a ministry status.

1991 Prime Minister Nawaz Sharif announces public supports of family planning.

In the past, targets of birth rate at each five-year plan have been set quite low, not realistic, so never be achieved. When comparing birth rate of each five-year plan with the target of birth rate in its previous plan, the former is often lower.

Table 33. Target of Each Five Year Plan

Period (National Plan)		CBR	Growth rate	CPR
1965-1970	Third	41	3.6	6.5
1972-1977	—	44	3.1	9.2
1978-1983	Fifth	40	2.9	9.5
1983-1988	Sixth	36	2.6	18.6
1988-1993	Seventh	38	3.0	23.4

Source: Each Five Year Plan

3.1.2 Programme in the 7th Plan (1988-1993)

The Policy for the 7th Plan as in the previous plans laid emphasis on lowering the population growth rate. This was to be achieved through expansion in service delivery, continuation of multi-sectoral approach and intensive motivational campaign and more effective contraceptive methods such as contraceptive surgery, IUD, injections, etc. were more emphasized. Supervision in the fields and effective IEC program were also pursued. The role of TBAs was considered essential in the villages to motivate couples, provide non-clinical contraceptives and refer IUD and contraceptive surgery cases. The involvement of registered medical practitioners in family planning services was considered important for improving the service network of the programme.

During the 7th Plan period a target was set to increase the contraceptive prevalence rate which was assumed to be 11.0% in 1987/88, to 23.5% in 1992/93. Although this target was based on preposition that services will be provided at least two thirds of the total population, limitation on services remained due to shortage of funds, restrictions on the recruitment of staff and lack of political support up to 1990.

Except for the "Fewer Children; Happy Family" and "Two Children, Happy Family" slogans publicized and the programme publicity carried out during the World Population Year, 1974, and International Conference on Population, 1984, little was done in terms of having a viable communication strategy to reach the target groups for creation of small family norm.

3.1.3 The 8th Five Year Plan (1993-1998)

As previously described, Nawaz Sharif, The former Prime Minister of Pakistan, during the National Population Conference on July 11, 1991 declared to follow a policy of population welfare, bringing down the population growth rate from 3.1% to 2.5% within the decade.

He has issued directive to all the federal and provincial ministries/departments to extend full support for an active integrated approach for the implementation of the Population Welfare Programme.

Under this directive inter-ministerial committees have been set up at the federal and provincial levels to review and monitor the progress of the programme.

Government's commitment to reinforce the Programme can be measured by the fact that, whereas most of the budgetary demands were reduced at every other Ministry, the MPW has been given its full requirement of Rs.702 million for the financial year 1991/92 and budget of ADP(Annual Development Plan) for 1992/93 has further been increased to Rs. 828 million.

(1) Objectives of the 8th Plan

The objectives of the 8th Plan are:

- to raise the level of contraceptive use from 14.0% in 1992/93 to 24.4% at the end of the plan period i.e. in 1997/98.
- to reduce the level of total fertility rate(TFR) from 5.97 to 5.40.
- to reduce the level of CBR from 39.00 to 35.00.
- to prevent 4.661 million births during the plan period.
- to reduce the population growth rate to 2.6% per annum by 1997/98, so that the target to 2.5% per annum by year 2000.

(2) National Targets

The overall TFR, CBR, CDR, PGR, CPR and number of users of contraceptives for the bench mark year, 1992/93 and targets for each year of the plan period, 1993-1998 are as below.

The proportion of contraceptive surgery among users of modern contraceptive methods is set to increase 12 points from 17.2% in 1992-93. Expansion of FP service delivery outlets is also planned by establishing additional FWCs and MSUs. However, increase estimates of contraceptive use depending on significant increase of contraceptive surgery cannot be reliable to prove expansion of service and increase of demand.

Table 34. Estimates of Population Parameters and Contraceptive Prevalence Rates

Year	Population	Women (15-49) (000)	TFR	CBR	CDR	PGR	CPR	USERS (000)
1992-93	120.9	19363	5.97	39.0	10.00	2.90	14.00	2711
1993-94	124.0	19895	5.90	38.29	9.90	2.84	15.50	3084
1994-95	128.0	20458	5.80	37.50	9.67	2.78	17.35	3549
1995-96	131.6	21053	5.75	36.70	9.43	2.73	19.45	4095
1996-97	135.2	21688	5.65	35.90	9.20	2.67	21.75	4717
1997-98	138.7	22361	5.40	35.00	9.00	2.60	24.42	5461

Source: Planning Commission

Table 35. Percentage Distribution of Users by Modern Contraceptive Methods in the 8th Five Year Plan (%)

Year	Condom	Pill	IUD	Injectables	C.Surgery	Foam	Total
1992-93	30.0	8.0	34.4	9.4	17.2	1.0	100
1993-94	27.5	7.5	33.0	10.0	21.0	1.0	100
1994-95	24.5	8.5	31.5	12.0	22.5	1.0	100
1995-96	22.0	9.0	29.0	13.0	26.0	1.0	100
1996-97	19.5	8.5	28.2	14.5	28.3	1.0	100
1997-98	18.0	9.0	27.0	16.0	29.0	1.0	100

Source: Planning Commission

(3) Strategy

In the 8th plan, the coverage rate is targeted to increase from 5% to 70% in rural areas and from 54% to 100% in urban areas, i.e. coverage 80% of total population. This can be achieved through establishing infrastructure in rural area by village workers, utilization of private sectors, and expansion of support for NGO, etc.

1) Urban Strategy

The number of FWCs in the urban areas will be increased from 690 to 900; the new centers will be established in slum areas such as Katchi Abadis, and areas of low income concentration. The poor performing FWCs would be relocated to the areas of larger demand.

The number of RHSCs A type will be increased from the existing 79 to 101 which would cover all district headquarters and selected tehsils. The number of TGIs (Target Group Institutes), positioned in medical and health institutions run by such as Railway, PIA, etc., will be increased to 174 to 450 and offer family planning services.

2) Rural Strategy

There are 45,000 villages in the rural setting with population of 85 million, in which 13,060 with more than 2,000 population and (nearly 70% of rural population) have been targeted. The strategic measures are as follows:

- The efficiency of the existing 600 FWCs will be improved by relocation, as necessary.
- The coverage will be increased further by effective involvement of BHUs, RHCs and MCHCs under MOH.
- The existing 130 MSUs located in tehsils will be increased from 130 to 251 to provide services in remote areas.
- The number of TBAs in service will be increased from 5,000 to 7,000. They will receive training on motivation, provision of non-clinical contraceptives and referring cases for clinical and surgical methods. They will also support services at MSUs and health outlets.
- VFPW(Village Family Planning Workers) will be introduced to the village with population of 2,000 and above based on renovative strategy for rural areas.

For 12,000 villages which do not receive family planning services, a female FPW would be appointed on contract basis. She would be a resident of the village, married and preferably with a few children between the ages of 25 and 50 years. She would be given 4 months training of enlightenment methods of family planning, family planning counselling and information about contraceptives.

She would be responsible for periodical house to house visits to provide enlightenment and counselling etc. and refer the cases to RHSC and FWC for clinical methods and contraceptive surgery. Rs. 1,000 per month as a wage and certain amount of medicines and equipments equivalent to Rs. 200 per month are subject to be provided.

Medical doctors in the private sector are not sufficiently included in the family planning service. However, educational equipments for training and enlightenment and contraceptives (IUD, etc.) will be provided to every medical practitioner through private organizations.

Funds will be also distributed to NGOs along with the strengthening support and guidance of NGOCC.

3) IEC

Communication campaign will be implemented through TV, radio, and newspapers, etc, by adopting different IEC strategies according to residential areas (urban/rural).

4) Training

With the purpose of improving service quality and increasing trained staff through strengthened training, training will be divided into two methods. One is a clinical training targeted for doctors and paramedical staff at twelve RTIs and the other is a non-clinical training of the program management and enlightenment at three PWTIs. Trainings for 12,000 VFWW(Village Family Welfare Worker) at 188 training centers in Tehsils will be executed under supervision of RTI.

3.1.4 Budget

To achieve the demographic targets, an allocation of Rs. 9.1 billion (Rs. 5.7 billion or 63% is expected for foreign assistance) has made for the 8th Five Year Plan; It is an almost three times increase over the 7th Plan allocation. Out of the Rs. 9.1 billion, Rs. 3.2 billion are for the federal components and Rs. 5.9 billion for the provincial components. The Federal component also includes Rs. 1.47 billion for contraceptive procurement which would be transferred to the provinces (Foreign Assistance for this amount is expected).

Table 36 shows the budget of the 8th Five Year Plan (1993-98).

Table 36. Cost Estimate for PWP for the 8th Five Year Plan (1993-98) (Rs. million)

Programme	Total	Foreign Assistance expected
A. Federal Programme		
1. Federal Administrative Organization	260.90	2.00
2. Population Welfare Services Islamabad District	60.38	32.10
3. Non-Governmental Organizations	313.70	250.00
4. Target Group Institutions	10.00	0.00
5. MCH Population Welfare Service in AJK	23.00	0.00
6. MCH Population Welfare Service in Northern Area	18.00	0.00
7. Contraceptive Surgery Fee	17.50	17.50
8. Communication Strategy	415.00	415.00
9. Population Education	28.00	28.00
10. Non-clinical Training through PWTIs	94.69	77.50
11. Clinical Training through RTIs	184.21	155.20
12. NRIFC	49.00	33.00
13. NRIRP	20.00	0.00
14. NIPS	106.00	76.00
15. Monitoring and Research Studies	26.47	26.47
16. Contraceptive Requirement	1471.17	1471.17
17. Social Marketing of Contraceptives	15.00	15.00
18. Construction of Federal Offices including RTIs	100.00	90.00
19. Transport	33.00	33.00
Sub-total	3246.02	2721.94
B. Provincial Programme		
1. Provincial, Divisional, District and Tehsil set up	1360.00	30.00
2. Reproductive Health Services	357.00	233.80
3. Contraceptive Surgery Fee	524.00	524.00
4. Family Welfare Centres	1572.42	367.00
5. Mobile Service Units	431.45	400.00
6. Involvement of Health Outlets and PLDs in Population Welfare Programme	72.02	72.00
7. Involvement of TBAs in Population welfare Programme	92.90	0.00
8. Family Planning Workers	883.55	860.00
9. Involvement of RMPs, Hakeems & homoeopaths in Population Welfare Programme	29.82	25.00
10. Communication	222.32	210.00
11. Construction of Provincial Offices + RHS Centres	123.00	113.00
12. transport	165.50	165.50
13. Innovatives	20.00	20.00
Sub-total	5853.98	3020.30
Grand Total	9100.00	5742.24
Percentages	100.00	63.10

Source: Foreign Assistance Requirements, 1992

3.2 Implementation Organizations

There are two main administrative bodies for the implementation of the program; the Ministry of Population Welfare and the provincial population welfare departments.

The Ministry of Population Welfare arranges the financial allocations, foreign assistance, procurement of contraceptives, equipment and transportation, clinical and non-clinical training, research and the national level communication and awareness program.

The provincial population welfare departments, on the other hand, maintain, administer and monitor the functioning of the service delivery outlets.

3.2.1 Governmental Organizations

(1) Ministry of Population and Welfare

Secretary, which comes under the federal minister of Population Welfare, takes the overall responsibility and jurisdiction of the program, and under which there are two major federal Director Generals; one is D.G. Technical and another is D.G. Program.

1) Director General Technical

Director General Technical is responsible for the testing and prevalence of contraceptives, the training of medical and para-medical personnel and the quality of service delivery which includes clinical dispensation of contraceptives and after care of users.

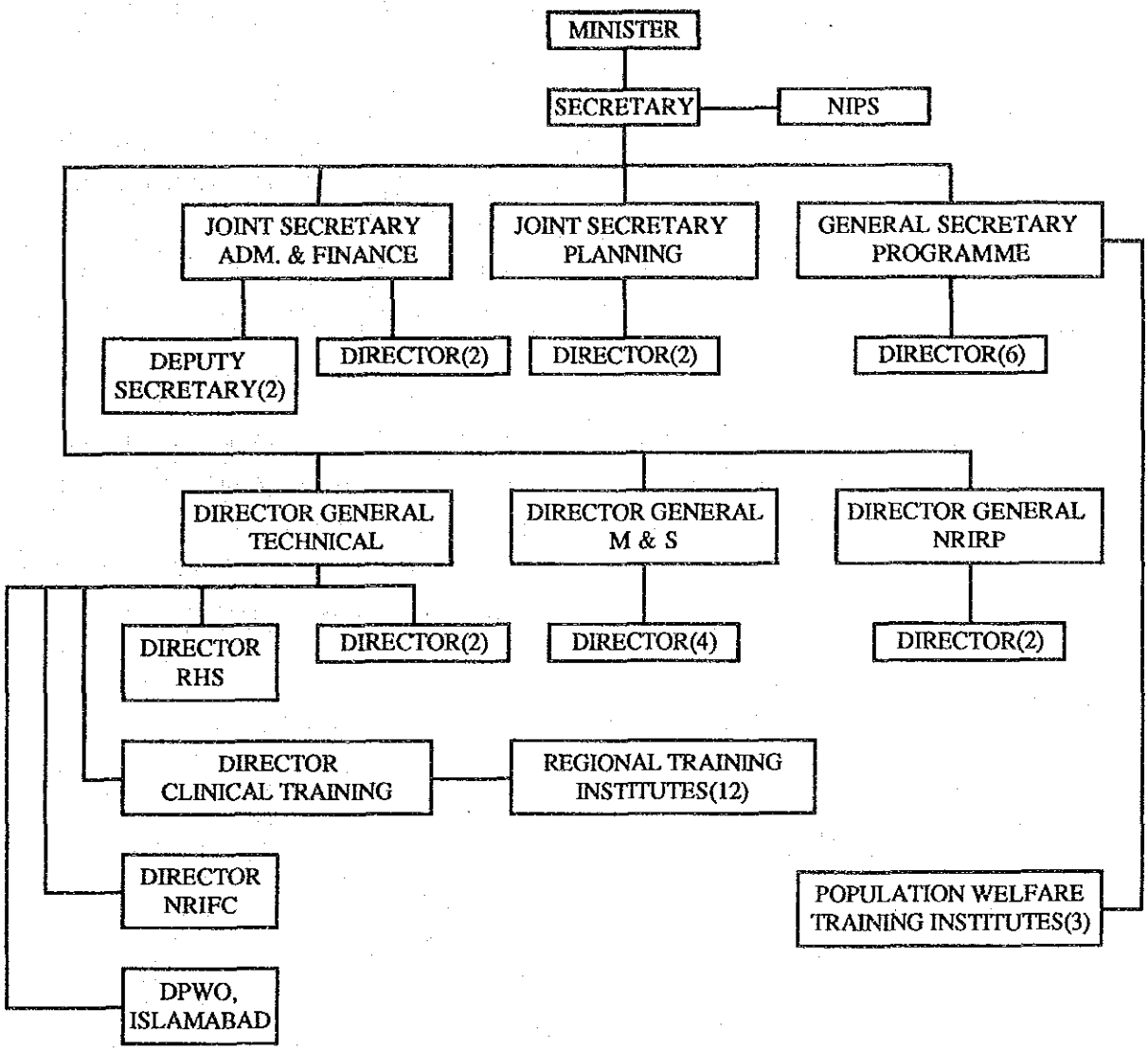
FWC(Family Welfare Center) and RHSC(Reproductive Health Service Centers) are under jurisdiction of the D.G. Technical, and NRIFC(National Research Institute for Fertility Control), Karachi, the Directorate for Clinical Training, Karachi and 12 Regional Training Institutes attached to it are also under direct jurisdiction of D.G. Technical.

2) Director General Program

D.G. Program is responsible for the followings: the approach to reach the program to the target population, information, education and communication campaigns, coordination with the provincial departments, the procurement and supply of contraceptives and equipment, planning and coordination with the donors, coordination with the NGOs, non-clinical training, coordination of administrators and professionals for the population program, and collaboration with other government agencies.

Figure 3 shows an organization chart of the Ministry of Population Welfare.

Figure 3. Organizational Chart of MPW



(2) The Provincial Population Welfare Departments

Each of the four provincial population welfare departments implements the service delivery of the program through their service outlets. Funds for services and personnel are allocated to the provincial governments by the federal government quarterly.

The Provincial departments are headed by Secretaries and their operations are run by provincial Director Generals.

The DGs are supported in their work by two major staff officers, Director Administration and Director Technical or Medical. The latter, who has a qualification of medical doctor, is responsible for the operation of the RHSCs. These centers are located in gynecological out patient departments of major hospitals. The Director Technical also provides support to the clinical aspects of the FWCs in the province.

Under the Director General are a director or a deputy director of IEC, and staff in charge of planning, monitoring and evaluation, and of finance and budgeting, etc.

The provincial operations in the field are administered by District Population Welfare Officers(DPWO), who are district level officers and comes under direct jurisdiction of the provincial governments' headquarters. The major responsibility of DPWOs is to supervise and administer the various FWC staff and facilities operating in the urban and rural areas of each respective district.

(3) Division

In the provinces, there were only two administrative tiers: the provincial and the district levels. This system has caused insufficiency because their coverage area was too large to control for proper supervision, which can be seen by the fact that 29 districts reported directly to provincial headquarter in Punjab. As a result, divisional tiers, which is set between the provincial and the district levels, have been established in provinces to improve this situation and to make the system operation work efficiently.

(4) District

The district is responsible for the implementation of the programme, in which planning, implementation, and supervision of the work are included. It would also undertake IEC activities in the field and provide logistics support and contraceptives.

(5) Tehsil

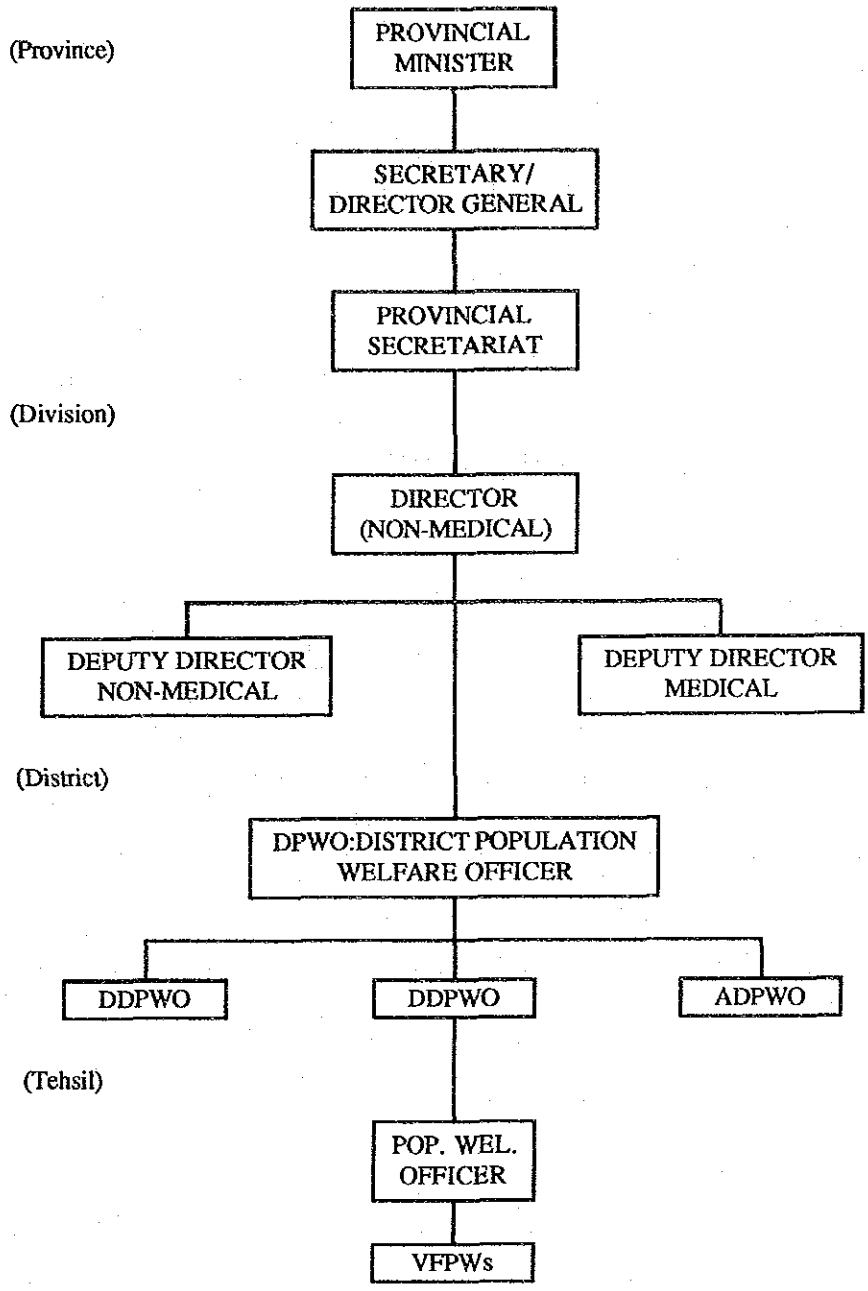
The functions of the tehsil can be described as follows:

- Training of VFPW(Village Family Planning Workers)
- Supervision of VFPWs
- Headquarter of MSU(Mobile Service Unit); and
- Center for male motivation through male FWA(Family Welfare Assistant)

With the expansion and activation of the programme, the functions of the tehsil are becoming increasingly significant in the delivery of family planning services.

Figure 4 shows a provincial set up at provincial, divisional, district and tehsil levels.

Figure 4. Provincial Set Up



3.2.2 The Service Delivery Outlets

There are two types of service delivery outlets which are under jurisdiction of provincial governments, i.e. FWC(Family Welfare Center) and RHSC(Reproductive Health Service Center).

Contraceptive surgery is conducted at RHSCs and an Extension Service Unit(ESU) that can provide contraceptive surgery services in the field by setting up camps are available at some RHSCs. Recently, MSU(Mobile Service

Unit) has been also introduced in provision of the IUD insertion, injection and non-clinical services for people who cannot visit FWC.

(1) FWC(Family Welfare Center)

The FWCs provide services of the programme at front. They are under supervision of DPWO and 1290 FWCs are currently located all over the country (half of them locate in urban and suburban areas). These centers are operated by female para-medics called FWW(Family Welfare Workers), who have received 18 months basic training of IUD insertion, injection and other contraceptive techniques, except for surgery at RTI(Regional Training Institute). They are also trained in maternal and child health theories and treatment of minor ailments.

Each FWW in a center is supported by a male and a female FWAs(Family Welfare Assistants). As a system of the center, only women can visit the center and a male FWA provides men in the area an individual counseling and health education on family planning, small family, child spacing, maternal and child health, etc. Information of a store providing condoms at a reasonable price by the program is also given by the male FWA.

An outreach activity for women in the area is supposed to be periodically practiced by visiting each household by a female FWA. But, the stated home visit activities are not fully practiced due to social constraints that limit female workers field activities.

In order to reach people who do not have access to a FWC in their immediate vicinity the program has introduced Mobile Service Units(MSUs) during the Seventh Five Year Plan(1988-1993). Presently, 30 MSUs are operative in the four provinces.

(2) Reproductive Health Services

The role of RHS activities has been important in the population welfare program since 1981, providing surgical contraception primarily to females.

These services are under direct control of the provincial Secretary/Director Generals and there are three types of facilities; i.e. RHS A Center, RHS B Center, and RHS Extension Services.

There are presently 34 RHS A centers, and they have been established within major teaching hospitals or large urban government hospitals since 1982. RHS B centers, which presently numbers 120, are located in District and Tehsil Headquarter and some private hospitals that have sufficient gynecological facilities.

RHS A centers get the referrals from FWCs, private doctors and the gynecological departments of the hospitals they are located in and they have functions as FWC. They also practice clinical experiments on contraception since they are related to NIFC(National Institute for Fertility Control).

Inaccessibility to FWC/RHSC is one of the problems. Table 37 shows the average distance to each facility by province. Even the average distance both in Punjab and Sindh, which have the best accessibility, is approximately 10 km. Thus, prevalence of FP service is limited.

Table 37. Average Distance to FWC/RHSC

Province	FWC(Km)	RHSC(A/B) (Km)
Punjab	9.31	71.02
Sindh	13.53	56.70
NWFP	11.30	68.95
Balochistan	47.50	235.13
Islamabad	26.25	24.64

Source: World Bank, 1987

3.2.3 Training Institutes

There are twelve RTIs(Regional Training Institutes) currently operative, in which a clinical training of paramedical staff as FWWs working at FWCs in the country is practiced.

These training institutes periodically provide new FWWs with a basic training and FWWs a refresh training. In addition, there are PWTI(Population Welfare Training Institutes) as a nonclinical training, which provide education on program management and communication, etc. for people associated with Population programmes.

(1) Regional Training Institutes(RTI)

RTIs, one of the training centers which conduct clinical training such as IUD insertion and injections, etc., numbers twelve and are located in Lahore, Sahiwal, Faisalabad, Multan, Rawalpindi, Karachi, Hyderabad, Larkana, Sukkur, Abbotabad, Peshawar and Quetta. These RTIs are operated for the provision of the training to para-medical staff of the clinical training program, especially IUD insertion and injections and of NGOs, health departments, and other institutions.

RTIs are under supervision of the Directorate of Clinical Training(DCT), Karachi, which gives instructions on its operation and the curricula, etc. It designs the curricula , teaching aids and guide lines for instruction of the

individual courses offered by the RTIs. There are one managing Director and three deputy directors in charge.

The basic training course for FWW is of 18 months duration. It is composed of three phases and each of which is comprised of a theoretical and practical part. The first preliminary training for 3 months include anatomy and physiology, materia medica, and first aid etc. The second 7 months period is for public health training which includes family planning, gynecology, statistics etc. The third phase is midwifery training for 8 months.

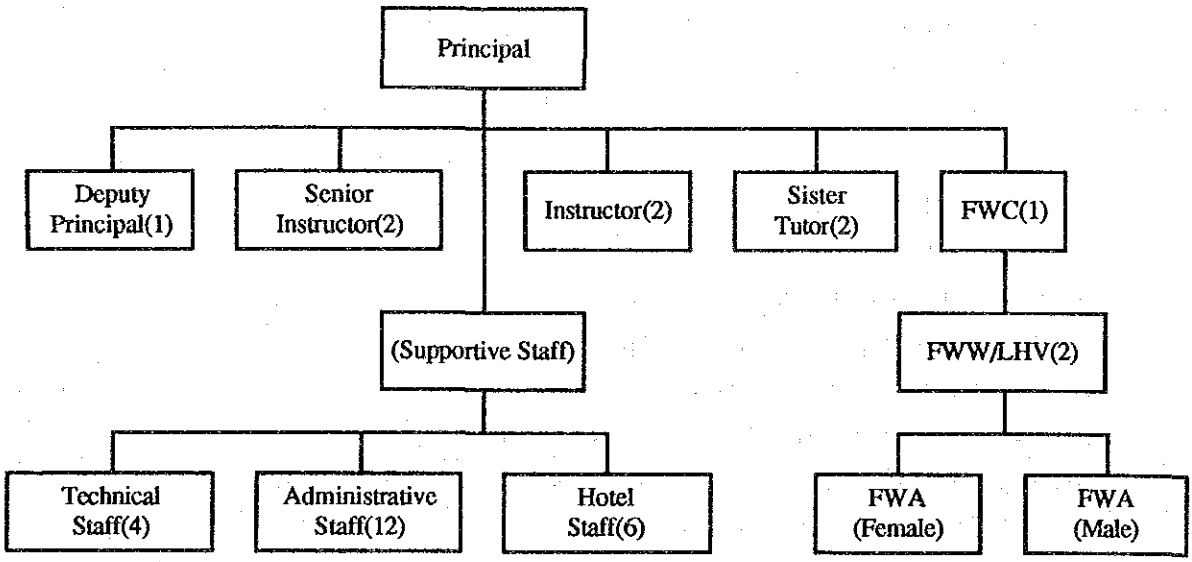
A short term refresher training for FWWs and a family planning training for LHVs and female doctors are also offered by RTIs are also provided.

On the completion of the basic training course, FWWs will be sent to the fields, then the follow-up training by OJT will be offered at FWC.

Another training offered by RTIs, a refresher training, is targeted at FWWs currently in service and female FWAs. It focuses on contraceptive dispensation and community activities during its two weeks training course, in which IUD insertion and other contraceptive methods will be practiced for three days for female doctors and six days for LHVs.

Following is the organization chart of RTI, Karachi and its training course where the study team visited:

Figure 5. Organizational Chart of RTI, Karachi



The 18 months Basic course for FWW in this RTI is as follows. Other RTIs also adopt almost the same curriculum with this.

1. Orientation (6 days)
2. Introduction (Cooperative work with the community) (12 days)
3. Nutrition (18 days)
4. Health Education (18 days)
5. Use of Medicines (12 days)
6. Diseases of women (30 days including 15 days for practical training at FW centers or hospitals)
7. Pregnancy (24 days)
8. Contraceptive methods (72 days)
9. Childbearing and delivery (72 days)
10. Child care (42 days)
11. TBA training (12 days)
12. First Aid (6 days)
13. Cooperative work with the community (78 days)
14. Management of FW centers (30 days)

The major training courses and the number of students at RTI, Karachi are as follows:

Table 38. Training Courses and the Number of Students at RTI, Karachi

Course	period	number of students
• Basic FWW	18 months	28
• Refresher FWWs/FWCs	2 weeks	5
• Refresher FWAs	3 weeks	12
• Female Health Workers (NGO) Basic	18 months	9
• FP inputs to doctors	3 days	73
• Midwifery (NGO)	5 months	8
• Public Health School Trainees (LHV)	1 month	39

Source: RTI, Karachi

(2) Population Welfare Training Institutes(PWTI)

There are three PWTIs located in Karachi, Lahore and Multan which conduct non clinical training for field officers such as DPWOs, DDPWOs and ADPWOs under control of the Director General Program in Ministry of Population and Welfare.

An orientation program by PWTI is offered to the staff from other ministries, which consists of the following three components;

- training of the PWTI instructors by some master trainers.
- training at each district and of DDPWO in charge of communication.
- training of district field staff, especially the male FWA.

They also conduct orientation and motivation activities for staff of line departments at the level of other districts.

3.2.4 Research Institutes

The program is supported by three types of research; contraceptive and bio-medical research, socioeconomic and demographic research and basic reproductive physiology research. Each of them are conducted at each research institute. Followings are the summary of these institutes.

(1) NIRFC(National Institute for Research in Fertility Control)

The institute was established as a national center for research and training in family planning in 1962 and has been developed into an institute for contraceptive research. Investigation of appropriate contraceptive methods developed internationally is conducted in order to introduce into Pakistan by field testing on a clinical basis. There are sufficient number of laboratories for testing of contraceptive devices, clinical pathology and RIA(Radioimmunoassay), etc.

(2) NRIRP(National Research Institute of Reproductive Physiology)

NRIRP is located in the National Institute of Health(NIH). It conducts basic research in contraception, especially through domestic medicinal plants.

(3) NIPS(National Institute for Population Studies)

NIPS was established in Islamabad in 1986 as an independent institute under Secretary of Ministry of Population Welfare.

The objectives of NIPS are the study on population growth and its effects, independent evaluation of various population welfare plan of the country, and guidance on control of rapid population growth.

3.2.5 NGO

The nine major NGOs working in the field of family planning have played an important role in the promotion of family planning services both in urban and rural areas of the country.

(1) NGOs Coordinating Council (NGOCC)

Realizing the important role of NGOs in extending family planning services, Pakistani Government decided to involve them in Family Welfare Programme.

A formal mechanism to support and coordinate their activities was evolved by establishing NGOCC under the government resolution.

Since 1985, the number of NGOs enrolled with the NGOCC increased from 9 to 126 and the service delivery outlets funded through NGOCC increased from 93 to 563 by June 1992.

The followings are two NGOs the study team visited, which were performing effective family planning activity, including maternal and child health care.

(2) Family Planning Association of Pakistan (FPAP)

As a member of the International Planned Parenthood Federation, the FPAP, a Pakistani NGO, has been positively staging activities to promote family planning in Pakistan since the 1950s. Presently, the activities of FPAP are shifting its emphasis from the enlightenment and provision of information on family planning to the following activities.

- Promoting family planning as part of Pakistan's National Health Development Program, from the viewpoint of making the most effective use of domestic resources
- Special emphasis on improving the social status of women
- Getting young people involved in family life education
- Utilizing local networks and organizations by getting the community involved in FPAP activities, and implementing activities on reproductive health care, maternal protection and care, and child survival

1) Organization

The FPAP has its headquarters in Lahore. It has five zonal offices (Karachi, Islamabad, Quetta, Faisalabad, and Peshawar) and 24 field offices under them. In addition, the FPAP has 178 family welfare centers, in which a staff called a work unit including volunteers are under operation. There are also model clinics in the above five areas where the zonal offices are located. Reproductive health promotion teams are organized to go round the communities. Each team consists of two female doctors, one nurse, one LHV, and one assistant attendant.

2) Contents of activities

The FPAP has been promoting family planning as a means not to restrain the population growth, but to improve the maternal and child health. With emphasis on providing counseling service and all sorts of scientifically proven contraceptive devices and medicines and improving the quality of contraceptive operations, the FPAP carries on the following activities.

a. Clinics

Maternal and child health care (examinations of pregnant women and nursing mothers) and contraceptive operations.

b. Circuit activities (including contraceptive operations)

Circuit activities of the reproductive health promotion teams. Before a visit by the team, government-administered tehsil hospitals and workers at other NGOs in the area will provide information as to the team's schedule. The follow-up for villagers, etc. who have been encouraged to use the services (contraceptive operation, etc.) of the team is provided by doctors and paramedical staff of tehsil hospitals. For example, when one of those villagers is subjected to a contraceptive operation at a tehsil hospital, the FPAP pays the expense of the operation to that hospital later. Recently, communities have become cooperative with the reproductive health promotion teams, which results in, for example, provision of a suitable place for activity in some areas.

c. Dispatching team for assurance of service quality (monitoring)

Since making the people recognize the need of family planning and offering quality services to them should help establish a good relationship with the people and promote family planning extensively, it is important to follow up and monitor those who use family planning. In terms of this viewpoint, the FPAP dispatches a Quality Assurance Team headed by a female doctor to the community.

d. Enlightenment activity (information dissemination and education)

The FPAP's enlightenment activity includes workshops for journalists, entertainment-education programs (street performance, folk songs, puppet plays, etc.), dialogues with religious leaders, publication of information magazines, and production of audio-visual kits for education.

3) Problems

Now that the USAID which has been providing most powerful financial support to population-related NGOs in Pakistan is withdrawing in September 1993, the FPAP--Pakistan's largest NGO that specializes in population problems--is worried that such withdrawal will have unfavorable effect on many NGOs in Pakistan.

As for its relations with the government, the FPAP considers it necessary to make the government recognize the importance of the roles NGOs play in the field of population welfare. On the other hand, according to the FPAP, the NGOCC, which is supposed to be an independent organization for coordinating the population-related NGOs, is under strong influence of the government and characterized by red tape. To dissolve the problem of the delay in fund procurement due to red tape, the FPAP proposes that the standards for

registration of NGOs should be defined clearly and the registered NGOs should be allowed to negotiate directly with the donor on financial aid. With respect to the National Population and Family Planning Program, the FPAP considers that success or failure depends upon how much of the government control is decentralized.

The change in number of users of the FPAP's family planning services by method and by year is shown in Table 39.

Table 39. Number and Breakdown of FPAP's Family Planning Users

	1988	1989	1990	1991	1992
Total persons	144,966	155,986	158,676	191,239	211,742
Pills	21%	19.0%	21.06%	20.35%	19.76%
Condoms	21%	21.0%	18.71%	20.00%	23.51%
Sterilization	11%	10.2%	8.52%	8.03%	7.61%
Injections	24%	24.0%	25.90%	25.77%	24.86%
IUD	19%	20.0%	21.62%	21.86%	20.94%
No plant	—	0.1%	0.01%	—	—
Other	5%	5.0%	4.18%	3.99%	3.32%

Source: FPAP

(3) Maternity and Child Welfare Association of Pakistan (MCWAP)

The MCWAP is an NGO established in 1961 to maintain and promote maternal and child health.

In implementing its programs, the MCWAP attaches primary importance to mobilizing the community and getting them involved in the programs. The reason for this is that the MCWAP considers that the community should be able to provide those services which the public sector cannot afford to offer and that by developing and reinforcing the potential capacities of the community and having the community take part in the MCWAP's programs voluntarily, it will become possible to create a better living environment.

The objective of the MCWAP is to provide basic maternal and child health care service focusing on families, from the viewpoint of enlightening the general public on the severe health condition in which mothers and children are placed and supplementing the maternal and child health service that is currently offered by the government.

Concretely, the MCWAP's activities in the project area aim at (1) lowering the birth rate, (2) reducing the infant mortality, (3) increasing the rate of contraception usage among married women in the reproductive period, and (4) reducing the death rate.

1) Organization

The MCWAP has its headquarters in Lahore. In addition, it has branches in Sindh, Punjab, and NWFP. The number of centers which actually provide maternal and child health service is as follows;

Sindh 5, Punjab 33, NWFP 7, North areas 1

2) Activities

The services offered at the maternal and child health centers (clinics) are as follows.

- Medical examination and care of pregnant women, including vaccination of newborn babies against tetanus
- Birth attendance as required (Approximately 90% of delivery is at home.)
- Medical examination of mothers who delivered a baby within the past five to six weeks, guidance in promoting family planning and nursing, etc.
- Health service to newborn babies and nursing mothers
- Health service to infants one to five years of age
- Vaccination against six types of children's infectious diseases
- Health education (to individuals and groups)
- Nutrition education (demonstrations)
- Services to mothers focusing on motivating the use of family planning and contraception (While the MCWAP is promoting contraception, it encourages mothers to make an informed choice, that is, a choice based on sufficient information. Whether or not to use family planning is decided giving consideration to the health condition and intention of the mother, the wish of her family, etc. The follow-up and monitoring of the users is an important activity.)
- Training of traditional birth attendants (TBAs) in safe delivery and maternal protection
- Continual professional education for health and medical staff implementing health programs.

3) Achievements

The contents of activities and the achievements of the Urban Maternal and Child Health and Family Planning Project in the Kotlakhpat, Lahore (the mission visited the centers in the districts and inspected the program) are described below.

The project, started in 1990, provides 53,176 people with two main services--the clinical service at the maternal and child health center and the circuit counseling service by the staff. Before the project was started, base-line data in the project area was collected through a house-to-house investigation and the families to be covered by the project were registered.

The project area is divided into two zones--Zone A and Zone B. Each zone is subdivided into five sections. Each section has a population of some 5,000, who are taken care of by a team consisting of one LHV and one TBA. The LHV and TBA are supervised by a public health nurse, who is supervised by a female doctor specializing in maternal and child health and serving as the field manager. The staff is provided with training in management information system and program supervision, as well as knowledge and technical training in maternal and child health.

In each zone, they offer two types of services: (1) providing mothers and children who visit the center with medical checkup, counseling on family planning, vaccination, etc. and (2) providing house-to-house counseling service by the staff.

On the day when service (1) is offered in Zone A, service (2) is provided in Zone B, and vice versa. Probationary staff members are teamed with experienced ones to acquire required skills through activity in the field.

This project was formulated with the cooperation of Pathfinder International--an international NGO headquartered in the United States. In 1992, two years after the project was started, the USAID evaluated the achievements of the project. According to the USAID, the project is one of the most successful of maternal and child health and family planning projects now under way in Pakistan.

4) Problems

The MCWAP has close relations with academies. For example, several professors at Alama Iqbal Medical College are working for the MCWAP as advisers, and the maternal and child health centers (clinics) in the project area are made open to local medical colleges for on-the-job training. Chairperson of the MCWAP, is one of the pioneers in the field of maternal and child health care and family planning in Pakistan. He already made an in-depth study of abortion in the 1960s.

In the Kotlakhpat area which the study team visited, the centers were functioning efficiently under the project coordinator (female doctor) who has been well-trained in public health, especially program management and MIS. The condition of control and maintenance of the centers was good and records were filed properly. The morale of the staff seemed high. They had introduced a unique technique called 'peer review' in which the staff members gather together periodically to evaluate the performance and discuss problems.

As an NGO which depends much on foreign aid, the MCWAP too is worried about the consequence of USAID's withdrawal. It seems that finding a new donor is a matter of urgency.

Table 40 shows the contents of services the MCWAP provided in the Kotlakhpat area during fiscal 1992.

As data indicating how much impact the project has had on the improvement in maternal and child health in the community, the changes in several health indexes are shown in Table 41.

Table 40. Services of MCWAP in Kotlakhpat, Lahore

•Total population of the community	53,176
•Number of families receiving MCWAP services	7,177
•Number of female persons registered for maternal and child health care (education in family planning, etc.)	3,936
•Number of Family Planning acceptors	2,403
Permanent treatment (contraceptive operation)	614
Temporary treatment (other than contraceptive operation)	1,789
Oral pills	119
Hormone injections	268
Condoms	933
IUD	462
Foam	4
Diagram	1
Other	2
•Number of female persons in any stage of pregnancy during 1992	2,980
•Of the above 2,980 cases:	
Normal deliveries	1,730
Abortions	85
Stillbirths	56
Maternal deaths	4
Died due to other causes	1
Moving-outs from the community	213
•Infants	2,313
•Number of infants (one to five years of age)	6,533
•Immunization	4,226
Expectant mother immunized with tetanus toxoid	1,229
Infants immunized (1991-1992)	3,785
Pre-schoolers immunized (1992)	441

Source: MCWAP

Table 41. Health Indices in Kotlakhpat, Lahore

	1990	1991	1992
CBR (per 1000 of population)	44.38	38.03	33.50
CDR (per 1000 of population)	7.20	4.70	5.50
Infant mortality (per 1000 of births)	76.40	47.80	65.09
Utilization rate of contraceptive method	16.4%	20.4%	33.5%
Population growth rate	3.71%	3.33%	2.78%
Maternal Mortality (per 1000 of births)	3.50	2.03	2.30

Source: MCWAP

4. Health Sector

4.1 Present Condition

4.1.1 Overview

As mentioned earlier, fiscal condition of Pakistan still belongs to least less-developed countries' group for its 1991's GNP (US$380) nevertheless its actual GDP growth rate has increased to 6.5%. In addition, the proportion of the governmental budget for the health sector has been decreased from 0.95% of GNP in fiscal year 1988/89 to 0.70% in fiscal year 1991/92, which is much smaller than the total military expenditure to GNP in 1990 (7.3%) and as less as educational portion (2.6%).

Health and sanitary condition in Pakistan has moved up from the worst group consisting of sub-Saharan African countries. However, some characteristics can be observed as follows. Firstly, the improvement of Infant Mortality Rate (IMR), even though it showed clear decline from 148 in 1960 to 94 in 1991 and then to 86 in recent survey (PDHS, 1992), can not keep up with the pace of its economic development. Secondly, Under five mortality rate (U5MR) has decreased from 221 in 1960 to 134 in 1991 showing relative improvement than sub-Saharan African countries. However, its rate is still much higher compared with Indonesia, the same Islamic country, from 219 to 52 in the same period, Viet Nam, which has been taking national isolation policy until recently, from 219 to 52, and Myanmar, which still limits public foreign contacts, from 237 to 117.

Although some improvement can be found in Crude Birth Rate (CDR) which declined from 23 in 1960 to 11 in 1991, Crude Birth Rate (CBR) from 49 to 42, and Total Fertility Rate (TFR) from 7.0 to 5.7, Maternal Mortality Rate (MMR) is still over 500. Thus, it can be assumed from the high frequency rate of the low birth weight that medical care and protection on pregnant women are not sufficient (though detailed analysis has not been conducted yet).

Moreover, while the life expectancy ratio in developed countries is around 110 (female life expectancy is 10% longer than male), the life expectancy ratio in Pakistan is 100, showing that male and female life expectancy is the same. This indicates that Pakistan is one of the rare countries in which female life expectancy is shorter following Nepal (98) and Bangladesh (99). In addition, as mentioned earlier, the fact that there still exists social customs preventing

women's educational and work attainment on their choice always has to be considered on medical and health issues in Pakistan.

Differences in medical and health services between urban and rural areas are recognized as can be seen in most developing countries. A referral system, consisting of primary medical health services emphasizing PHC (BHU, MCH center, RHC) in rural areas, secondary medical facilities (regional hospitals) and nation-wide professional medical services (provincial or teaching hospitals), has been organized since the 7th Five-Year Plan. However, its system has not been functioning as planned for various reasons.

In rural areas, Basic Health Unit (BHU) and Rural Health Center (RHC) buildings built during the sixth and seventh plans can not meet the needs of residents for lack of electricity and water supply and shortage of equipments and consumables as a part of the reason. However, the prime reason for it is rather human than equipments. Since many senior medical staff (doctors, public health nurses, nurses) are from urban upper-class, they tend to avoid long-term residence in rural area. In addition, while female workers are indispensable for women in traditional rural areas, female workers in health sector still face difficulties for limitation to go outside of their residential areas without male relative's attendance (especially young women) and social custom discriminating against works touching people's bodies. Short working hours (8 or 9 a.m. ~ 2 p.m.) in many facilities is also an important issue.

There are some medical facilities that can provide high quality medical treatments in urban areas as in developed countries, which is, though, only for limited people. Thus, there is a double imbalance between rural and urban people and wealthy and poor people in urban areas.

Insufficiency of female staff, who can contact the residents directly and needed for health education, both in quality and quantity, is the main reason which makes prevalence of PHC, the basic national health policy, difficult. Among approximately 95,000 total medical and health workers (doctors, dentists, nurses, midwives, LHW) in 1991, 55,572 people (58%) were doctors, which accounts for extreme imbalance among medical and health workers along with the absolute shortage of staffs, 47 doctors per 100,000 population compared with 171 doctors per 100,000 population. In Japan, the number of nurse is about four times as many as doctors (about 834,000 nurses for the 211,797 total number of registered doctors). On the other hand, the number of nurses in Pakistan is only 18,150 (a third of the number of doctors) and accounts for a little bit over two thirds when including midwives (16,299) and

3,463 of Lady Health Visitor (LHV). Nevertheless, most of the nurses work for hospitals providing treatment in urban areas. It is clear that shortage of human resources in PHC (especially public health in rural areas), which has been supported as a basic national health plan, is a serious matter.

In order to improve this situation, training of LHV has been started though numbers only a little less than 3,500. While about 1,000 nurses are trained every year, most of them quit working for marriage and pregnancy. Especially traditional and social restraints of nursing on male cases makes their efficiency low. Shortage of female staff in medical and health area is serious, especially in rural areas. On the other hand, lack of medical and health staff in rural areas is chronic since doctors wish to work in urban areas regardless of over 3,500 graduates from 17 medical colleges every year. As for dentists, pharmacists, radiological technicians, medical technologists cannot function well even in rural areas because of systematic insufficiency with shortage of absolute numbers. Moreover, management of medical and health areas is a serious problem. It is because there is no trained professionals in the areas starting from business and accounting management to management of various equipments, consumables, medicines and system at many facilities in developing countries.

The above-mentioned situation, along with inequalities of sexes in education and work, causes difficulties to deliver medical and health services to rural residents, especially women, which consist of more than 70% of the total population. For example, while Expanded Programme on Immunization (EPI) under cooperation of UNICEF helped improving vaccination rate of DPT vaccine (diphtheria, tetanus, whooping cough), BCG, Polio and measles up to about 80% (national level) in the last few years, vaccination rate of tetanus among women at reproductive age is still as low as 42%.

As for characteristics of diseases and death causes, diarrhea diseases, preumonia and respiratory diseases (bronchitis, etc.) are conspicuous among infants as can be seen in other developing countries, and accidents among adult men and heart-failure and cancers among the aged people, same characteristics as in developed countries. Here, frequent pregnancy and delivery complications among reproductive aged women as conspicuous characteristics indicate the insufficient medical health services for women. Inaccurate statistics on health also make the situation unclear. For example, reliability of utilization rate of Oral Rehydration Salt (ORS), a part PHC measure for dehydration caused by diarrhea, assumed to be 85%, is unclear since statistical figures do not apply the actual situation and different figures are reported from different institutions.

The most important issue at a national level is high population growth rate. The total population of Pakistan in 1991 has reached 121.50 million, about four times larger than the population at the independence in 1947. Especially, population growth in the last twenty years is remarkable because of introduction of modern medical science and improvement of living standard. That is, because of the transition from "high fertility with high mortality" to "high fertility with low mortality" along with rapid population growth. Fifty percent of the total population consists of under 15 years old generation. If the present population growth rate remains at 3.1%, further rapid population growth is expected in a few years when this generation reaches reproductive age.

Various problems still exist regarding nutrition although food storage per person at national level has been improved. Lack of iodine, especially in northern mountain area and lack of micronutrient such as deficiency of Vitamin A among infants have been improved with the efforts of central and provincial governments, international organizations and NGOs. On the other hand, chronic malnutrition among infants and pregnant or nursing women still exists which needs to be improved further.

Spread of malaria (including drug resistance and tropical malaria), potential spread of tetanus (120,000 cases estimated), leprosy (30,000 cases estimated), tropical parasite (Ginia worm, etc.) and increase of various blood infectious disease from blood transfusion are concerned. Inclusion of hepatitis vaccination into EPI and strengthening PHC are planned.

As can be observed in countries under rapid development, narcotics use is becoming the public health problem in Pakistan.

4.1.2 A Review of the 7th Five-Year Plan

In the 7th Five-Year Plan which started in 1988, 13.2 billion rupees, approximately 3.8% of the total budget for the public sector development, was allocated to the health sector. Of the 13.2 billion, approximately 43% was appropriated to local health programs, 24% to hospital expenses, 16% to the development to health workers, and 8% to other disease prevention programs. Since a significant part of the budget appropriated to local health programs was used to construct health facilities, the quality of health services has not been emphasized. It is estimated that appropriation of non-development expenditure is 36 billion rupees, equivalent to 63% of the total budget of the health sector.

According to the estimate of World Bank, the current expenditure in the social sector, or approximately 3.5% of the GDP, must be doubled in order to maintain the current economic growth and reduce the poverty.The public expenditure on health, expressed in terms of percent to GDP, has been gradually decreasing from 1% in fiscal year 1988/89 to 0.7% (estimate) in fiscal year 1991/92. Even though the health policies are given primary importance, a proportion of health expenditure in total public expenditure has decreased from 3.6% (1988/89) to 2.6% (1992/93). Thus, the decrease in health expenditure clearly reflects the decrease in expenditure in the social sector.

The change in proportion of health expenditure to public expenditure is shown in Table 42.

Table 42. Government Health Expenditure (1988/89-1992/93)
(in PRs million)

	1988/89	1989/90	1990/91	1991/92	1992/93
Recurrent	4,519	4,537	4,997	5,517	7,254
Capital	2,802	2,681	2,741	2,708	3,582
Total Expenditure	7,321	7,218	7,738	8,224	10,836
Health as % of Total government Expenditure	3.64%	3.26%	3.14%	2.71%	2.59%
Total Health as % of GDP	0.95%	0.84%	0.76%	0.70%	—

Source: Economic Survey 1991-92, Planning & development Div.

The real GDP has developed at an annual rate of approximately 6.5% throughout 1980s. On the other hand, however, other social indicators such as Literacy Rate (35%), Life Expectancy at Birth (58 years old), Undernutrition (low birth weight rate is 35% and frequency rate of infants' middle and heavy malnutrition is 40%), Infant Mortality Rate (IMR=94), Under 5 Mortality Rate (U5MR=124), Primary School Enrollment Rate (38%), Population Growth Rate (3.2%) still belong to the worst in the area.

According to Human Development Index (HDI) by United Nations Development Programme (UNDP) in 1992, Pakistan is ranked 120 among 160 nations, which indicates human development cannot keep up with its economic development. In the point of women in development, too, every proportion of social indicator to men belongs to the worst group in the world.

The Pakistan government, recognizing that low-level human development prevents the economic growth and broaden the urban-rural and male-female differentials, has announced to implement a three year Social Action Plan (SAP) starting in 1992/93 with every effort and to make it as a basis for women in development.