HEALTH AND NUTRITION

Good health defined in terms of state of complete physical, mental and social well being is a prerequisite for a nation to be productive. This is because ill health not only covers disease but also hunger, exclusion, isolation, insecurity and powerlessness which consequently prevent individuals from realizing their full potential. Good health, in contrast is not only valued in its own right, but it also raises the human capital of a country, thereby positively contributing to the economic and social development. Enabling the human beings to realize the true potential they possess and achievement of well being of each and every citizen of a nation is first and foremost requirement of human development. Along side the intrinsic importance of health in social, economic and human development and as a dimension of welfare, poor health can directly influence an individual's opportunities, his or her earning capacity, participation in community activities, and so on. This important instrumental function of health implies that inequalities in health often translate into inequalities in other dimensions of welfare.

The importance of health is also reflected in specific measurable targets declared at UN Millennium Declaration of September 2000. The Millennium Development Goals (MDGs) represent a vision based on an internationally agreed set of time bound goals for reducing extreme poverty, extending gender equality, and advancing opportunities for health and education. These goals serve as a benchmark of progress toward the vision of Millennium Declaration, guided by basic values of freedom, equality, solidarity, tolerance, and respect for nature and shared responsibilities.

Pakistan is also a signatory to UN Millennium Declaration and is fully committed to extend the agenda of providing basic right of health to all of its citizens. The Government of Pakistan has taken several policy and program initiatives to fulfill its commitment regarding the MDGs. The Medium Term Development framework (2005-10) is constructed with a view to establish a just and sustainable economic system for reducing poverty and achieving MDGs. The health vision as reflected in the National Health Policy, 2001 envisage health reform as basically a means of poverty reduction.

The Health Policy 2001 identifies ten specific areas for reform ranging from control of communicable diseases especially T.B, Malaria, HIV/AIDS and the EPI cluster. The reforms also address inadequacies in primary and secondary health services and propose improvements in district health system, including removal of professional and managerial gaps and distortions. These elements will continue to be important, but in the context of a paradigmatic shift from healthcare reform to wider health sector linkage with social development. It is now widely recognized that without a strong nexus with social determinants of health and inter-sectoral bridges, it is difficult for the populace to overcome poverty.

Government's firm stance on health related issues is further reflected in the Poverty Reduction Strategy Paper, which recognizes the need to substantially increase financing and to enhance efficiency of spending through organizational and management reforms. Pakistan Social and Living Standard Measurement Survey (PSLM), an implementation mechanism for PRSP, provides a set of district level representative and population based estimates of social indicators and their progress under the PRSP.

PRSP health expenditure during FY07 increased by 35.6 percent to Rs. 53 billion. Out of this Rs. 53

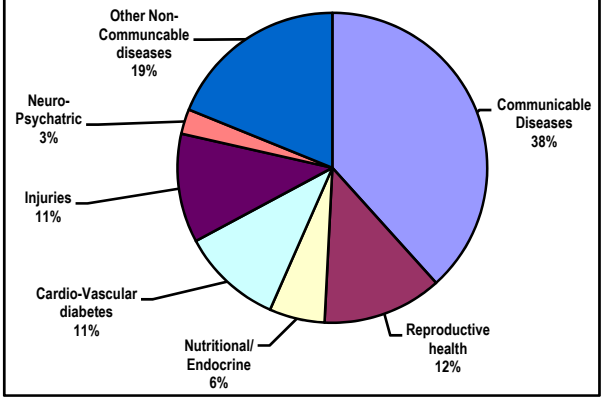
billion, largest increase was observed in Punjab (53.3%), followed by NWFP (49.5%), Federal government (23.4%), and Sindh(18.1%) . Contrary to same period last year when health expenditure in Balochistan declined by 6.6%, health expenditure during FY07 increased by 14%.

PSLM report 2006-07 presents the results pertaining to health indicators during FY07. The report includes sickness/injuries, immunization, diarrhea, and the use of pre and post natal services. The indicator of sickness/injuries with a prevalence rate of 6.27 percent shows an improvement over 7.10 percent during 2004-05. In the category of fully immunized one year old children, the record of immunization given to children shows a slight rise from 49 percent to 50 percent during FY06 and FY07. However, full immunization rates based on recall and record shows significant increase in coverage from 71 to 76 percent. There has been decrease in the proportion of children under five suffering from diarrhea i.e., from 12 percent to 11 percent but Sindh has shown significant increase from 8 percent to 12 percent which may be attributed to shortage of clean water. The use of Oral Re-hydration Solution (ORS) to treat children with diarrhea has increased from 72 percent in 2005-06 to 76 percent in 2006-07. Prenatal consultation has moderately increased compared from 52 percent in 2005-06 to 53 percent in 2006-07. Besides this, 56 percent of pregnant women received Tetanus Toxoid injection in 2006-07 compared to 62 percent in 2005-06.

11.1: A SNAPSHOT OF THE HEALTH STATUS

The demographic and epidemiological transition through which a nation passes also affects the health status of the nation. With reference to demographic transition Pakistan stands in the list of world most populous countries with population of 161 million. Although the annual population growth rate has declined from over 3 percent in 1960s and 1970s to present level of 1.8 percent per annum; it still remains high. As far as epidemiological transition is concerned an equal burden of disease can now be attributable to infectious viz-a-viz non-communicable diseases. (See fig 11.1). A high burden of communicable viz-a viz non-communicable disease is evident from the fact that current incidence of tuberculosis is 177 per 100,000 populations, prevalence of Hepatitis C in general population is 5.3%; more than 24.3 % of the population over the age of 18 years has high blood pressure, 10 % of the adult population suffers from diabetes; 1 % of population is blind; and 34 % suffers from depressive disorders. The large burden of infectious diseases in Pakistan is known to be closely related to the lack of sanitation facilities and safe sources of potable water. Water –borne diseases constitute nearly 12.5 percent of the diseases burden in Pakistan.

Fig-11.1: Burden of Disease



Notwithstanding the health issues discussed above, some of the key health indicators in PSLM 2006-07 present a healthy picture which shows an improvement over the previous fiscal year. But when viewed in a regional context, Pakistan human welfare indicators still lag behind (See table 11.1).

The Government is fully aware of the challenges of communicable vs non-communicable diseases and other structural problem in the health sector. The Ministry of Health and the provincial departments are already engaged in bringing improvements in health sector through better provision of health facilities, improvement in infrastructure and human resource, and implementation of various health programs. Beside this, Service delivery is being organized through preventive, promotive, curative, and rehabilitative services. The Ministry of Health is also planning to conduct second National Health Survey of Pakistan. Due to these concerted efforts, social indicators as reported in Human

Development Report 2008 and key health indicators (PSLM 2006-07) show some improvement. However, in regional context Pakistan still lags behind other c ountries and a lot more needs to be done to track the functioning of the health system and to support the existing Health Management and Information system in order to uplift the health status of general public.

Table–11.1: Social Indicators

Country	Life Expectancy Year 2005**		Infant Mortality Rate per 1000** Year 2005	Mortality Rate under 5 per 1000 Year 2005**	Population Avg. Annual (%) Growth 2000-06***
	F	M			
Pakistan	**64.8**	**64.3**	**70^**	**99**	**1.8***
India	65.3	62.3	56	74	1.5
Sri Lanka	75.6	67.9	12	14	0.4
Bangladesh	64.0	62.3	54	73	1.9
Nepal	62.9	62.1	56	74	2.1
China	74.3	71.0	23	27	0.6
Thailand	74.5	65.0	18	21	0.9
Philippines	73.3	68.9	25	33	1.8
Malaysia	76.1	71.4	10	12	1.9
Indonesia	71.6	67.8	28	36	1.3

^ Pakistan Social and Living Standard Measurement Survey (PSLM) 2005-06

*Population growth for Pakistan is estimated at 1.8 percent (National Institute of Population Studies).

***Source: Human Development Report 2008*

****Source: World Development Report 2008*

11.2- HEALTH EXPENDITURES:

Registering an increase of 20 percent in fiscal year 2007-08, total expenditure on health has increased from Rs. 50 billion to Rs. 60 billion, of which, Rs. 27 billion have been allocated for development expenditure while Rs. 33 billion for current expenditure. Health expenditures in absolute terms have more than doubled during the last seven years; from Rs. 25 billion in 2001-02 to Rs. 60 billion in 2007-08. However, health expenditure as a percentage of GDP does not present a satisfactory picture as it has remained stagnant at almost 0.6 percent during the entire period of 2001-02 till 2007-08. (see Table 11.2).

Table 11.2: Health & Nutrition Expenditures (2000-01-2007-08) **(Rs.billions)**

Fiscal Years	Public Sector Expenditure (Federal and Provincial)			Percentage Change	Health Expenditure as % of GDP
	Total Health Expenditures	Development Expenditure	Current Expenditure		
2000-01	24.28	5.94	18.34	9.9	0.58
2001-02	25.41	6.69	18.72	4.7	0.57
2002-03	28.81	6.61	22.21	13.4	0.59
2003-04	32.81	8.50	24.31	13.8	0.58
2004-05	38.00	11.00	27.00	15.8	0.57
2005-06	40.00	16.00	24.00	5.3	0.51
2006-07	50.00	20.00	30.00	25	0.57
2007-08	60.00	27.22	32.67	20	0.57

Source: Planning and Development Division

11.3 - SERVICE DELIVERY

Pakistan has one of the largest Public Sector-owned Service Delivery infrastructure in the world. However, dual jobholding is common due to the differences in incentives in the public viz—a –viz the private sector. As a result the role of the private sector has been increasing in the provision of services. As opposed to this, there is no

regulatory framework in place for the private sector. Efforts are underway to address the currently prevailing service delivery challenges by developing alternative service delivery and financing options at the basic health care and hospital levels. Provincial governments have focused on restructuring the mode of primary healthcare delivery by revitalizing BHUs and RHCs. The government of Punjab has taken a lead in this area by developing models of subcontracting and other models where service delivery has been incentivised within the existing system; reform of directly managed services in Punjab is currently operational in 23 districts. The measures introduced included fresh merit- based recruitment of doctors, increase in salary packages by 100 %, the introduction of additional perks such as motorbikes to enhance mobility, increased availability of drugs and equipment and investments to upgrade infrastructure including ambulances. This program is being implemented and financed through Provincial Devolved Social Services Program and Punjab Health Sector Reform Program. Through reform of directly managed services, Minimum Service Standards are also being introduced in Punjab; these are likely to have a major impact on the quality of services.

Efforts are also underway to enhance regulatory capacity within the country. In 2006, approval was given to create a Drug Regulatory Authority, the work on which is currently underway to establish it .The Ministry of Health is also working to develop a framework for the regulation of the private sector healthcare.

11.4- CONFIGURATION OF PAKISTAN'S HEALTH SYSTEM

Constitutionally, health is a provincial subject in Pakistan with clearly demarcated roles, responsibilities and prerogatives at each level of the government. The Federal Government is mandated with policy-making, coordination, technical support, research, training and seeking foreign assistance. The provincial and district departments of health are responsible for the delivery and management of health services. The devolution of administrative powers under the Local Government Ordinance 2001 has devolved service delivery to the district level.

11.4.1- Health Infrastructure:

The state attempts to provide healthcare through a three-tiered healthcare delivery system and a range of public health interventions. The former includes *Basic Health Units* (BHUs) and *Rural Health Centers* (RHCs), forming the core of the primary healthcare structure. Secondary care including first and second referral facilities providing acute, ambulatory and inpatient care is provided through *Tehsil Headquarter Hospitals* (THQs), and *District Headquarter Hospitals* (DHQs) which are supported by tertiary care from *teaching hospitals.*

There are seven hospitals under the control of Federal Government located in Islamabad, Rawalpindi and Karachi. There are tertiary care hospitals in all the provinces including those with the status of teaching hospitals, which are under the administrative jurisdiction of provinces. However, recently four hospitals in NWFP and three in Sindh have been granted autonomous status. Throughout the country, the vast network of health care facilities include 945 hospitals, 5349 BHUs and Sub- Health Centers , 562 RHCs, 4755 Dispensaries, 903 MCH Centers and 290 TB Centers. These healthcare facilities show an improvement over the previous year as the total number of healthcare facilities during 2006-07 was 12,726. During 2007-08, these healthcare facilities have increased to a total of 12804. The detail about the human resource available within the country up till 2007 is provided in Table12.4. There has been a gradual improvement in the number of doctors, dentists and nurses over the years. A cursory look at Table 11.3 is sufficient to see that doctors, dentists, nurses and LHVs have doubled in the last one decade and accordingly population per doctor, per dentist, per nurse etc. have all registered a significant improvement.

11.4.2- Physical Targets and Achievements during 2007-08:

The targets for the health sector during 2007-08 included the establishment of 13 Rural Health Centers (RHCs), 43 Basic health Units (BHUs) and upgradation of 65 existing RHCs and 950 BHUs. The manpower target included the addition of 4500 new doctors, 400 dentists, 3350 Nurses, 4900 paramedics and 450 Traditional Birth Attendants.

Under the preventive program, about 8 million children were targeted to be immunized and 24 million packets of Oral Rehydration Salt (ORS) were to be distributed during 2007-08.

Table 11.3: Human Resource Available from 1995 till 2007

Years*	1995	2000	2003	2004	2005	2006	2007
MBBS Doctors	70,692	92,824	108,151	113,295	118,098	123,125	127,859
Dentists	2,747	4,165	5,531	6,128	6,743	7,438	8195
Nurses	22,299	37,528	46,331	48,446	51,270	57,646	62,651
Midwives	20,910	22,525	23,318	23,559	23,897	24,692	25,261
Lady Health Visitors(LHVs)	4,185	5,443	6,599	6,741	7,073	8,405	9,302
Population per doctor	1718	1473	1350	1316	1274	1251	1225
Population per dentist	44223	32819	26389	24320	22306	20702	19121
Population per Nurse	5448	3642	3150	3076	2935	2671	2501
Population per midwife	5810	6068	6260	6326	6297	6235	6203
Population per LHVs	29027	25113	22119	22108	21274	18318	16845

* Year as on Ist January

Sources: Pakistan Medical and Dental Council (PMDC) and Pakistan Nursing Council(PNC), Islamabad

The health program during the current fiscal year has realized, on average, 90 percent of its physical targets (up to March 2008). The highest achievement of 94 percent has been obtained in the immunization category followed by the provision of ORS (92 percent) and health human resource (89 percent). The sub- sector wise achievement of program has been recorded as 84 percent for RHCs and 91 percent for BHUs. It is encouraging to note that the achievements obtained so far are in the close vicinity of the targets.

Table 11.4: Physical Targets and Achievements During 2007-08

Sub-Sector	Targets (Numbers)	Estimated Achievements (Numbers)	Achievements (%)
A. Rural Health Programme			
i. New Basic Health Units (BHUs)	50	43	86
ii. New Rural Health Centres (RHCs)	15	13	86
iii. Upgradation of existing RHCs	80	65	81
iv. Upgradation of existing BHUs	1000	950	95
B. Beds in Hospitals/RHCs/BHUs	5500	4300	78
C. Health Manpower Development			
i. Doctors	5000	4500	90
ii. Dentists	450	400	89
iii. Nurses	3500	3350	96
iv. Paramedics	5500	4900	89
v. Training of TBAs	500	450	90
vi. Training of LHWs	96000	80000	83
D. Preventive Programme			
i. Immunization (Million Nos)	8	7.5	94
ii. Oral Rehyderation Salt (ORS) (Million Packets)	24	22	92

Source: Planning and Development Division

11.4.3- National Programs

Pakistan has an extensive public health infrastructure, which consist of a network of more than 12,000 first level heath care facilities and a range of disease-specific vertical public health programs. Most of the program based interventions are led by the federal government with implementation arms at the provincial and district levels. Some of the programs described are disease-specific such as the respective programmes on HIV/AIDS, malaria, tuberculosis, non-communicable diseases and hepatitis. Others are specific to the lifecycle domain which include

maternal and child health, the National program for family planning and primary health care, and National EPI program. (Table 11.5).

Table 11.5: Various Public Health Programs

Federally-led national program	The National Program for Family Planning and Primary Health Care The Expanded Program for Immunization The National HIV/AIDS Control Program The National Tuberculosis Control Program The National Malaria Control Program The National Nutrition Program
Newly launched program in the public sector (2005-08)	The National Program for Prevention and Control of Blindness National Program for the Prevention and Control of Hepatitis National Neonatal, Maternal and Child Health Program

The details about the various national programs regarding health sector are as under:

a. National Program on Family Planning & Primary Health Care

The program was launched in 1994 as the Prime Minister's Program for Family Planning and Primary Health Care. Its name was changed to the National Program for Family Planning and Primary heath Care (NP-FPPHC) in 2001.Ths Program focuses on delivering essential primary healthcare services to the communities at doorstep through female community health workers, thus creating a link between the health system and the grassroots level, providing services to women who for cultural reasons cannot leave their homes. Currently there are about 93,978 Lady Health Workers and plan is underway to increase their number to 100,000. These LHWs had a significant impact on important outputs such as immunization coverage, prenatal care, attendance at delivery and contraceptive prevalence.

b. Expanded Program on Immunization

The Expanded Programme on Immunization (EPI) was launched in 1978. It aims at protecting children by immunizing them against Childhood Tuberculosis, Poliomyelitis, Diphtheria, Pertussis, Hepatitis B, Measles and also against Neonatal Tetanus by immunizing pregnant women. The Programme has significantly progressed during the period of time in terms of immunization coverage and disease reduction. The objective of the programme is to reduce mortality and morbidity resulting from the seven EPI target diseases by immunizing children of the age of 0-11 months and women of child bearing age.

EPI Programme's target is to immunize children of 0-11 months against seven EPI target diseases and pregnant mothers with Tetanus Toxiod. During the year 2007, 6.061 million children of 0-11 months, 5.833 million children of 12-23 months and 7.033 million pregnant ladies were targeted for the programme. However, 82% children of 0-11 months, 85% children of 12-23 months and 47% pregnant mothers were immunized during 2007. After inclusion of Hepatitis B Vaccine into the National EPI Vaccination Schedule in 2002 the programme is also introducing a new vaccine Haemophilus Influenzae Type B (Hib) from the July 2008 which will be delivered as a combination of 5 vaccines in one (Pentavalent).

Besides improving the routine immunization coverage, the National EPI Programme has launched measles catch-up campaign in phases, targeting over 64 million children of 9 months to below 13 years of the age. More than 97 % coverage has been achieved after implementation of the campaign during 2007-08. The programme has also planned to launch high risk area approach to immunize child bearing age women (CBAs) with assistance of WHO and UNICEF in two districts as a piloting for the year 2008-09.

c. National AIDS Control Program (NACP)

Pakistan is a signatory to the MDGs; Goal 6 of which states that Pakistan will "Halt and begin to reverse the spread of HIV/AIDS" by the year 2015.The primary objective of National AIDS Control Program (NACP) programme is to seek

such a halt and reversal. To contextualize the project seeks to contain the epidemic among the most at risk group where it has established and prevent it from establishing among the bridge groups and the general population.

Presently NACP and its provincial counterparts (Provincial AIDS Control Programmes in Punjab, Sindh, Balochistan, NWFP and AJK) are implementing the interventions throughout the country. The principal components of the NACP are: (i) the interventions for target groups; (ii) HIV prevention for general public; (iii) prevention of HIV transmission through blood and blood products and; (iv) capacity building and programme management. In addition, the NACP with Canadian support has established HIV and AIDS Second Generation Surveillance System (SGS) to track HIV epidemic in Pakistan.

The reported cases of HIV are about 4000 HIV, and around 1400 AIDS patients have been registered with AIDS treatment centers across the country since 1987. Out of these AIDS cases, 500 are on Antiretroviral therapy and are also receiving treatment for AIDS related infections i.e. opportunistic infections and Tuberculosis etc. Preventive Measures to Halt the HIV Epidemic are under implementation since 2003 and considerable achievement has been made since the adoption of preventive measures.

d. National Tuberculosis Control Program

The National TB Control Program is responsible for overall TB control activities in the country i.e. policy guideline, technical support, coordination, monitoring and evaluation, and research, where as the Provincial TB Control Programs are responsible for the actual care delivery process including program planning, training of care provides, case detection, case management, monitoring and supervision. The overall objective of NTP is to reduce mortality, morbidity and disease transmission so that TB is no longer a public health problem. The National targets are in line with the Millennium Development Goals (MDGs) i.e. to cure 85% of detected new cases of sputum smear positive pulmonary TB and to detect 70% of estimated cases once 85% cure rate is achieved. A steady progress has been made from 2000 onwards to improve the case detection and treatment success rates. The commitment resulted in rapid expansion of the DOTS strategy from 2000 to 2005, reaching DOTS-all-over in May 2005. Since then free diagnostic and treatment facilities for TB patients are available all over the country within the public sector health care delivery network. Presently, more than 1200 diagnostic facilities and more than 5000 treatment facilities are available throughout the country. NTP has treated more than 800,000 TB patients since 2001 and 234100 TB cases were treated through the DOTS strategy last year. CDR (Case Detection Rate) has increased from 7% in 2001 to 69% in 2007; whereas TSR (Treatment Success rate) has increased from 77% in 2001 to 87%.

e. Malaria Control Program (MCP)

In Pakistan, malaria has been a major public health problem, threatening the health of the people due to prevailing socio-economic conditions and epidemiological situation. The transmission has been described as a combination of stable and unstable malaria with low to moderate endemicity. There is a tendency for epidemic break-outs of Malaria over a large area, particularly in Punjab and Sindh. The disease is now emerging as a prominent health problem in Balochistan and FATA, particularly along the international border. Malaria is the disease that inevitably affects the poor segments of the population living in hot and humid far flung areas. These areas also lack good health care facilities and functioning diseases surveillance system, thus morbidity and mortality in most of the instances go unreported. Each year about half a million people suffer from malaria.

Malaria control was initiated in Pakistan in 1950s and has passed through several evolutionary phases. In 1975, a malaria control strategy was adopted with provincial commitment to implementation and in 1998, Pakistan joined the global Roll Back Malaria (RBM) initiative. This led to the development of a five year RBM project in 2001 as part of which efforts were intensified in the 28 high –risk districts. More recently, a Strategic Plan for 2005-10 based on the RBM strategy has been developed and a number of steps have been taken for its implementation. The program has shown process level success.

f. National Program for Prevention & Control of Blindness

The National Programme for Prevention & Control of Blindness (NP-PCB) was launched by the Federal Ministry of Health, Government of Pakistan in year 2005. The Programme is in line with "VISION 2020" the global initiative of WHO for elimination of preventable causes of blindness by the year 2020. The total budget for the programme is Rs. 2775 million and it will be completed in year 2010. The key targets of the program include

- Establishment of 07 Centers of Excellence in Ophthalmology.
- Strengthening and up gradation of 20 Tertiary Teaching Hospital (TTH) Eye Departments.
- Strengthening and up gradation of 63 District Eye Units (DHQ Hospitals).
- Strengthening and up gradation of 147 Tehsil Eye Units (THQ Hospitals).
- Training of 50,000 primary health care workers in primary eye care.

Latest data uptill 2007-08 on these key indicators show that an achievement of 100 % in Establishment of 07 Centers of Excellence in Ophthalmology, 65 % in Up Gradation Of Tertiary Teaching Hospitals (TTH), 71 % in Up gradation of District Headquarters Hospitals (DHQ) and zero % in Up gradation of Tehsil Headquarters Hospitals (THQ) has been made so far.

According to the National Blindness Survey (2002 – 2004) the prevalence of blindness was found to be 1%, which means that at least 1.5 million Pakistanis are blind in both eyes. Fortunately, about 80% of the prevalent causes of blindness in Pakistan are either avoidable (i.e. they are either preventable or treatable) or can be helped with optical devices (spectacles or low vision aids). About 0.62 million patients have been treated at the Up graded Eye Departments throughout Pakistan till December31st 2007:

g. National Program for Prevention and Control of Hepatitis:

Launched in 2005 as the Prime Ministers initiative, the program was a response to the high prevalence of hepatitis B and C (estimated at 3 % in the general population and 5-22 % in the high risk group). The program focuses on mandatory vaccination of all children less than one year of age, vaccination of high-risk groups, promotes safe blood diffusion, disposal of syringes, sterilization of medical devices and availability of safe water and disposal of sewage. Currently the baseline for this program is being established.

h- National Maternal Neonatal and Child Health (MNCH) Program

The National Maternal, Neonatal and Child Health (MNCH) Program aims to improve the Maternal and Child Health indicators in the country in line with our International obligations regarding MDG's. The Goal of the National MNCH Program is to reduce Maternal, Neonatal & Child deaths and illnesses by improving their health status, particularly of the poor and the marginalized. The key objectives are to improve the accessibility of high quality and effective RH services for all, particularly the poor and the marginalized, through development and implementation of a sustainable MNCH program at all levels of healthcare delivery system. The areas of focus in this program are strengthening the Public Health facilities (DHQ's, THQ's RHC's and in BHU's residents of LHV,s) with regards to enhanced incentives for Human Resource, Provision of essential equipment, Capacity Building through trainings and availability of essential medicines with regards to providing comprehensive EmONC services. The program has been launched with following objectives in line with our international obligations with regard to the MDGs:

- To reduce the Under Five Mortality Rate to less than 65 per 1000 live births by the year 2011 (MDG target for 2015:45/1000)
- To reduce the Newborn Mortality Rate to less than 40 per 1000 live births by the year 2011 (Target for 2015: 25/1000)

- To reduce the Infant Mortality Rate to less than 55 per 1000 live births by the year 2011 (Target for 2015:40/1000)
- To reduce Maternal Mortality Ratio to 200 per 100,000 live births by the year 2011 (Target for 2015: 140/100,000)
- To increase the proportion of deliveries attended by skilled birth attendants at home or in health facilities to 90% (Target for 2015 :> 90%)
- Increase in Contraceptive Prevalence Rate from 36% (2005) to 51% in 2010 and 55% in 2015

i- Health Information and Surveillance Systems

1. Health Management Information System:

The Ministry of Health has been implementing a Health Management Information System (HMIS) for first care level facilities (HMIS/FCLF) since 1992. The objectives of the HMIS are to improve coverage and quality of care for priority health interventions, disease surveillance and epidemic control, and monitor availability of essential PHC commodities.

In last seven years, the HMIS has been extended to 116 districts for which approximately 20,000 health workers were trained in data collection procedures. Most districts are now sending monthly reports with regularity around 86%. A number of organizations, both government and international are now using this data for looking at disease trends, resource allocations and planning.

A National Feedback Report – 2007 has been developed. This is the fifth National Report of its kind. The main features of the report include analysis of four years' HMIS data, reporting from 117 districts and 9, 326 First Level Care Facilities with reporting regularity of 87%.

2. District Health Information System (DHIS)

To improve the functioning, coverage and the scope of the existing HMIS, the Ministry of Health with the technical support of JICA has completed the review of HMIS structure, functions, indicators, data collection tools and the software. The objective was to expand the scope of the current system from first level care health facilities to secondary care hospitals and the private sector. Based upon comprehensive situation analysis and the information needs a list of revised indicators, data collection tools and mechanisms have been developed in the context of devolution.

This updated system has also been pilot tested in four pilot districts i.e. Swabi, Khanewal, Thatta and Quetta. A National Plan of Action has recently been approved both by the Federal Ministry of Health and the Provincial Health Departments to implement the plan.

3. Disease Surveillance System

Communicable diseases remain the most important health problem in Pakistan. The most common causes of death and illness in the country are acute respiratory tract infections, diarrhoeal diseases, malaria, tuberculosis, and vaccine preventable infections. Epidemic-prone diseases such as meningococcal meningitis, cholera, hepatitis and viral hemorrhagic fevers are also prominent health threats in the country. A functional disease surveillance system is thus needed for priority setting, planning, resource mobilization and allocation, prediction and early detection of epidemics and monitoring and evaluation of intervention programs.

With a view to respond to this need, the Ministry of Health conducted an assessment study in 2004 to explore the existing situation of data collection, analysis, processing, its use and response for supporting both the communicable and non-communicable Disease Surveillance. The study has revealed a number of deficiencies in Public Health Surveillance in the country. Therefore, an inter provincial process was initiated to develop a Disease Surveillance System through which a ten year National Plan has been developed. It covers both communicable and non communicable diseases and is response/ action oriented, which will integrate all existing surveillance activities of the disease control programs.

Together, the state's healthcare infrastructure and the programs are helping the government to meet Pakistan's health sector goals – those that are part of the Millennium Development Goals (MDGs)

and others articulated in the Poverty Reduction Strategy Paper and the Medium Term Development Framework 2005-10 (MTDF).

11.5- STRATEGIC POLICY DIRECTION: ESTABLISHMENT OF NATIONAL HEALTH POLICY UNIT

The National Health Policy Unit (NHPU) was established in end 2005 under National Health Facility (NHF). The mandate of NHPU is to enable the government to respond to evolving health policy challenges. The task of the Policy Unit is to provide policy advice on strategy and resource allocation, monitoring and evaluation of health strategies across the health sector and ensuring that the national policies and strategies are responsive to the emerging needs.

The NHPU has prepared four strategy papers on the following: Health System Strengthening, Human Resources for Health, Performance-based Monitoring and Evaluation of Health Policy Implementation, Financial and Resource Allocation Strategy for Health Sector. These strategy papers have been shared with the provincial health departments to develop consensus and finalization. In addition to that NHPU has also completed studies and reports on the following key aspects during 2007-08.

1 Public Expenditure Review: Understanding the profile of the average users of public ally funded Hospital care System (In collaboration with World Bank).

2 Identification of areas of collaboration and coordination between health and population sectors

3 Comparative analysis of pre- and post-devolution allocation and expenditure on health sector at district level

4 Public Expenditure Review: The role of public investment in increasing the immunization coverage in Pakistan

Furthermore, NHPU has undertaken a unique study for Poverty Reduction Support Credit-III. This is the study on **'Health System Performance Assessment'** and involves ranking of districts based on their performance for evidence-based decision making. The report has been published by the Ministry of Health. Another study titled **'Fact Book on Health and Population'** has also been prepared, which will be very useful for policy and decision-makers, planners, parliamentarians, researchers, donors and partners. An amount of US$ 76.85 million is expected to be made available through GAVI Health System Strengthening (GAVI HSS) over a period of five years and NHPU will be responsible to undertake Health System Strengthening activities throughout the country.

11.6- CANCER DIAGNOSIS AND TREATMENT:

PAEC has been playing a vital role in the health sector since 1960 by using the nuclear and other advanced techniques for diagnosis and treatment of cancerous and allied diseases and is also involved in the national cancer awareness, prevention, and diagnosis and treatment programs.

Presently, 13 Nuclear Medicine & Oncology centres equipped with excellent facilities are working under PEAC and serving as non profit public sector organizations with continuously integrate programs in diagnosis of different kinds of cancer/allied diseases and their treatment has received considerable acclaim in the public.

Six new Nuclear Medicine & Oncology Centres are in different phases of construction at Gilgit, Swat, Bannu, D.I. Khan, Gujranwala and Nawabshah. During the period July to December 2007, utilizing the maximum capacity of the latest and state-of art equipment available at PAEC Nuclear Medicine & Oncology Centres, more than 205,000 patients were attended.

Throughout the country, major disciplines available and operative in different PAEC nuclear medical centers include the disciplines of Nuclear medicine; Clinical Oncology; Surgical Oncology; Clinical Laboratories; Radiology; Medical Physics; Bio Engineering; Research and Development; Teaching and Training ; Cancer Awareness and prevention; Cancer Registry& NCRC. About 11,154 patients in the field of nuclear medicine and 86,119 in the field of clinical oncology have benefited during July- December 2007. Besides

management of the operations of major disciplines in different PAEC nuclear medical centers, Directorate General of Medical Sciences, PAEC Headquarter is also working on 'Human Resource Development Programme". This will provide trained and expert personnel in each field of cancer diagnosis and treatment. Keeping in view the future requirements of the cancer hospitals under PAEC, the development of human resource is mandatory

11.7- DRUG ABUSE IN PAKISTAN

Drug Abuse is widespread in our society and has affected Pakistan in many ways. It contributes to crime, adds to the cost of our already over burdened health care system and to the financially strapped social welfare system. According to National Assessment Study on Drug Abuse – 2006 conducted in Pakistan, there were about 628,000 opioid users which include 484,000 heroin addicts and 125,000 injecting drug users. The most commonly used drug is cannabis or hashish followed by sedatives, opium and heroin.

A new Drug Abuse Control Master Plan (2008-2012) has been prepared to meet the growing challenges. Expenditure under this plan is expected to be Rs.10869.43 million. Objectives have been defined and achievable targets set with emphasis on both supply and demand reduction activities. Lessons learnt from the implementation of the last Master Plan have been addressed. The Master Plan takes into account the impact of the worsening drug situation in Afghanistan during 2006 and 2007 resulting in an unprecedented increase in poppy cultivation/opium production.

11.7.1 Drug Demand Reduction

Under Sections 52 & 53 of Control of Narcotic Substances Act, 1997, Provincial Government have been directed to register drug addicts and establish treatment and rehabilitation centers at provincial levels. However, at Federal level two new Model Addiction Treatment and Rehabilitation Centres (MATRC) have been established at Islamabad and Quetta with the cost of Rs.39.017 million each during the current year. Both are 45 bedded centers providing free treatment, food, boarding and rehabilitation to drug addicts. Efforts are also being made for their job placement. Additionally, another (100 bedded) MATRC for the treatment and rehabilitation of drug addicts in Karach is being established. This would enhance our capacity in the field of Treatment and Rehabilitation for drug addicts. Besides these Treatment & Rehabilitation Centres another project titled "Treatment Programme for Injecting Drug Users (IDUs) is also being implemented at a Cost of Rs.19.700 million, for providing treatment facilities to the injecting drug users and street children involved in solvent abuse. Two other projects namely "Community Participation in Drug Demand Reduction" and "Creating Mass Awareness against Drug Abuse"' at a total cost of Rs.71.427 million are also being implemented in Pakistan. These programmes aim to create awareness amongst the masses, particularly high-risk groups and involve the civil society in prevention as well as treatment and rehabilitation drug addicts.

11.7.2 Seizure of Narcotics Drugs

The details about the seizure of narcotic drugs in Pakistan, cases affected and defendants arrested during the fiscal year 2007-08 are given in Table 11.6.

Table 11.6- Seizure of Drugs

No. of cases	23436 (Nos)
No. of defendants	23256 (Nos)
Opium	11483.164 (Kgs)
Heroine	2719.854(Kgs)
Hashish	43128.27(Kgs)
Cocaine	5.929(Kgs)
Poppy Straw	6880.00(Nos)

Source: Ministry of Narcotics Control

11.8- FOOD AND NUTRITION

Nutrition is an essential element for development of full physical and mental potential of an individual and an important indicator of development. Lack of balanced food and its unavailability leads to malnutrition, which affects individuals' health, intellectual maturity, labor productivity and consequently socio-economic development of the country.

In spite of adequate production of food grains during the year the availability and access to

major food items was disrupted in the country due to international price hike and mis-management in stock maintenance. This resulted in low and erratic food availability and consumption of marginalized groups. However, adequate food availability to meet national requirements was envisaged during 2007-08 by taking some immediate measures. The production of major food items has been professionally estimated to arrange food deficit in time, to increase food supply and nutritional intake average caloric availability per day form 2466 in 2006-07 to 2529 in 2007-08 per capita/day and protein from 69 to 70 gms per capita/day. The availability of essential items of consumption is briefly given in table 11.7.

Table 11.7: Food Availability Per Capita

Items	Year/ Units	49-50	79-80	89-90	99-00	03-04	04-05	05-06	06-07 (E)	07-08 (T)
Cereals	Kg	139.3	147.1	160.7	165.0	150.7	142.0	150.0	160.0	168.0
Pulses	Kg	13.9	6.3	5.4	7.2	6.1	6.8	7.6	7.2	8.4
Sugar	Kg	17.1	28.7	27.0	26.4	33.6	27.0	29.8	32.2	28.7
Milk	Ltr	107.0	94.8	107.6	148.8	154.0	155.7	162.6	170.1	176.3
Meat	Kg	9.8	13.7	17.3	18.76	18.8	19.6	19.1	20.0	20.6
Eggs	Dozen	0.2	1.2	2.1	5.1	4.6	4.7	4.6	4.8	4.9
Edible Oil	Ltr	2.3	6.3	10.3	11.1	11.3	12.4	12.8	12.9	12.8
Caloric & Protein Availability (Per Capita)										
Calories per day (Number)		2078	2301	2324	2416	2381	2271	2423	2466	2529
Protein per day (Gms)		62.8	61.5	67.4	67.5	67.8	65.5	69.6	69.5	70.0

E:Estimates, T: Targets *Source: Planning & Development Division*

Nutrition as development concern is multi-sectoral and spread across the sectors. Nutritional interventions in the MTDF envisaged multi-disciplinary approach by coordinating and integrating nutrition activities effectively to achieve the objectives. Therefore, a joint forum, National Nutrition Committee has been established in the Planning Commission to analyze and discuss nutrition concerns across sectors, seek approval of all nutrition interventions before implementation and oversee the preparation of Nutrition Master Plan aligned with MDGSs.

A supporting activity, **National School Nutrition Programme,** has been formulated as a social safety net and incentive to improve the nutritional status of primary school going children especially girls in rural areas with aims to reduce gender disparity in enrolment and drop-out rates.

Specific interventions in Agriculture and Health sectors have been implemented such as food security & food safety, promotion of iodized salt and breast-feeding, iron supplementation, wheat flour fortification and nutritional awareness.

Nutrition through Primary Health Care (PHC): The Primary Health Care integrated interventions consisting of nutrition activities viz micronutrient supplementation for anemia control, vitamin A supplementation to children under five years of age and micro nutrient to women of child bearing age, growth monitoring, and counseling on breast feeding and weaning practices and awareness through Lady Health Workers (LHWs) were implemented.

Reference Laboratory for Food Quality Control System has been strengthened at Nutrition Division, National Institute of Health, Islamabad.

Micro Nutrient Deficiency Control Programme: The Major Micro Nutrient deficiencies i.e. Iodine, Iron and Vitamin-A., were addressed by Nutrition Wing, Ministry of Health: through donors' assistance:

a) Iodine Deficiency Disorder Control (IDD): Iodized salt production in private sector was strengthened in 53 districts and supply increased to 65% and awareness material

distributed among the stakeholders. Legislation for USI has been drafted.

b) Wheat Flour Fortification to control iron deficiency has been started in 50 flour mills and Millers trained to operate the micro-feeders and carry out quality tests. Quality standards for fortified wheat flour have been notified. The quality assurance and control system has been developed.

c) Policy for Infant Young Child Feeding (IYCF) has been formulated. Health staff on Baby Friendly Hospital Initiative (BFHI), breastfeeding counseling, IYCF and trained in 11 districts.

TABLE 11.1

NATIONAL MEDICAL AND HEALTH ESTABLISHMENT (YEAR-WISE)

(Progressive Numbers)

Year*	Hospi-tals	Dispen-saries	BHUs Sub Health Centres	Maternity & Child Health Centres	Rural Health Centres	TB Centres	Total Beds	Population per Bed
1990	756	3,795	4,213	1,050	459	220	72,997	1,444
1991	776	3,993	4,414	1,057	465	219	75,805	1,425
1992	778	4,095	4,526	1,055	470	228	76,938	1,464
1993	799	4,206	4,663	849	485	233	80,047	1,443
1994	822	4,280	4,902	853	496	242	84,883	1,396
1995	827	4,253	4,986	859	498	260	85,805	1,416
1996	858	4,513	5,143	853	505	262	88,454	1,407
1997	865	4,523	5,121	853	513	262	89,929	1,418
1998	872	4,551	5,155	852	514	263	90,659	1,440
1999	879	4,583	5,185	855	530	264	92,174	1,448
2000	876	4,635	5,171	856	531	274	93,907	1,456
2001	907	4,625	5,230	879	541	272	97,945	1,427
2002	906	4,590	5,308	862	550	285	98,264	1,454
2003	906	4,554	5,290	907	552	289	98,684	1,479
2004	916	4,582	5,301	906	552	289	99,908	1,492
2005	919	4,632	5,334	907	556	289	101,490	1,483
2006	924	4,712	5,336	906	560	288	102,073	1,508
2007	945	4,755	5,349	903	562	290	103,285	1,517

* : Year as on 1st January

Source: Ministry of Health

TABLE 11.2

REGISTERED MEDICAL AND PARAMEDICAL PERSONNELS AND EXPENDITURE ON HEALTH

(Progressive Numbers)

Year*	Regis-tered Doctors **	Regis-tered Dentists **	Regis-tered Nurses **	Register-ed Mid-wives	Register-ed Lady Health Visitors	Population per			Expenditure(Mln. Rs)^	
						Doctor	Dentist	Nurse	Develop-ment*	Non-Deve-lopment
1990	52,884	2,068	16,948	15,009	3,106	1,993	50,967	6,219	2741.00	4997.00
1991	56,567	2,184	18,150	16,299	3,463	1,910	49,469	5,953	2402.00	6129.65
1992	61,039	2,269	19,389	17,678	3,796	1,845	49,630	5,808	2152.31	7452.31
1993	63,998	2,394	20,245	18,641	3,920	1,805	48,262	5,707	2875.00	7680.00
1994	67,189	2,584	21,419	19,759	4,107	1,763	45,859	5,532	3589.73	8501.00
1995	70,692	2,747	22,299	20,910	4,185	1,718	44,223	5,448	5741.07	10613.75
1996	75,222	2,933	24,776	21,662	4,407	1,655	42,445	5,025	6485.40	11857.43
1997	79,458	3,155	28,661	21,840	4,589	1,605	40,428	4,449	6076.60	13586.91
1998	83,682	3,434	32,938	22,103	4,959	1,561	38,020	3,964	5491.81	15315.86
1999	88,102	3,857	35,979	22,401	5,299	1,515	34,607	3,710	5887.00	16190.00
2000	92,824	4,165	37,528	22,525	5,443	1,473	32,819	3,642	5944.00	18337.00
2001	97,247	4,612	40,019	22,711	5,669	1,437	30,304	3,492	6688.00	18717.00
2002	102,632	5,058	44,520	23,084	6,397	1,392	28,244	3,209	6609.00	22205.00
2003	108,151	5,531	46,331	23,318	6,599	1,350	26,389	3,150	8500.00	24305.00
2004	113,295	6,128	48,446	23,559	6,741	1,316	24,320	3,076	11000.00	27000.00
2005	118,098	6,743	51,270	23,897	7,073	1,274	22,306	2,935	16000.00	24000.00
2006	123,125	7,438	57,646	24,692	8,405	1,251	20,702	2,671	20000.00	30000.00
2007	127,859	8,195	62,651	25,261	9,302	1,225	19,121	2,501	27228.00	32670.00

Source: (1) Ministry of Health. (2) Planning & Development Division.

* Year as on 1st January

^ Expenditure figures are on fiscal year basis

** Registered with Pakistan Medical & Dental Council and Pakistan Nursing Council.

TABLE 11.3

DATA ON EXPANDED PROGRAMME OF IMMUNIZATION VACCINATION PERFORMANCE, 0-4 YEARS (Calendar Year Basis)

(000 Nos.)

Calendar Year/ Vaccine/doze.		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
B.C.G.		4,387	4,092	3,448	4,841	4,804	4,804	5,582	4,995	5,070	4,778	5,115	4862	5203	5364	5790
POLIO	0	945	1,151	1,007	1,372	1,522	1,522	2,031	1,788	1,735	1,842	2,132	2353	2626	2846	3098
	I	4,386	4,233	3,675	4,797	4,739	4,739	5,254	4,581	4,584	4,543	4,820	4513	4859	5250	5645
	II	2,952	3,730	3,141	4,282	4,221	4,221	4,559	4,027	4,079	4,015	4,282	4098	4387	4870	5178
	III	3,686	3,466	2,845	3,994	3,947	3,947	4,131	3,812	4,024	3,780	4,035	3916	4160	4739	5070
	IV	-	-	291	-	-	-	-	-	-	-	-	-	-	-	-
	BR	916	308	256	143	92	92	57	460	227	138	106	78	49	33	46
COMBO	I		-	-	-	-	-	-	-	-	-	-	-	-	-	3999
	II		-	-	-	-	-	-	-	-	-	-	-	-	-	3720
	III		-	-	-	-	-	-	-	-	-	-	-	-	-	3656
D.P.T	I	4,308	4,091	3,639	4,805	4,740	4,740	5,070	4,693	4,689	4,659	4,769	4428	4581	5275	1710
	II	3,892	3,647	3,125	4,294	4,213	4,213	4,530	4,140	4,176	4,039	4,228	4025	4127	4886	1523
	III	369	3,406	2,876	4,012	3,936	3,936	4,273	3,918	4,113	3,796	3,983	3840	3919	4756	1479
	BR	717	265	225	137	89	89	169	45	47	22	6	2	0.1	0.2	0.05
H.B.V	I	-	-	-	-	-	-	-	-	-	1,772	4,483	4213	4458	5053	1617
	II	-	-	-	-	-	-	-	-	-	1,290	3,892	3880	4065	4692	1441
	III	-	-	-	-	-	-	-	-	-	966	3,576	3617	3841	4571	1401
T.T	I	3,311	3,232	2,871	3,830	3,733	3,733	4,282	4,091	4,179	4,678	3,590	3391	4539	4069	3877
	II	2,625	2,510	2,234	3,042	2,912	2,912	3,325	3,274	3,286	3,540	2,970	2650	2858	3133	3048
	III	672	714	751	988	1,098	1,098	1,056	928	869	1,278	1,423	765	793	894	810
	IV	224	240	240	401	446	446	484	318	311	310	338	293	519	286	239
	V	86	97	100	166	251	251	308	152	164	159	164	132	157	176	141
MEASLES		3,819	3,690	2,991	4,428	4,242	4,242	4,794	4,277	4,547	4,106	4,163	4124	4387	5050	5386

Source: Ministry of Health

- Nil.

B.C.G = Bacillus + Calamus + Guerin (0-4 Years).

D.P.T = Diptheria + Perussis + Tetanus (1-3 Years).

T.T = Tetanus Toxoid (1-5 Years).

B.R = Booster.

HBV = Hepatitis Vaccine

COMBO Combination of Hep-B & DPT

TABLE 11.4

DOCTOR CLINIC FEE IN VARIOUS CITIES

(In rupees)

Ending November	Faisal-abad	Gujran-wala	Hyder-abad	Islam-abad	Karachi	Lahore	Pesha-war	Quetta	Rawal-pindi	Sukkur	Average
1990	51.67	32.50	50.00	26.88	26.54	30.00	22.50	57.00	25.83	35.00	35.79
1991	42.00	32.50	50.00	27.50	27.09	24.64	22.50	60.00	26.67	40.00	35.29
1992	31.67	32.50	66.67	27.50	26.49	24.64	22.50	52.50	29.17	75.00	38.86
1993	32.54	43.75	80.00	27.50	28.85	27.14	27.50	52.50	29.17	75.00	42.40
1994	32.50	40.00	65.00	27.50	31.00	24.64	30.00	82.50	29.17	70.00	43.23
1995	37.50	40.00	65.71	27.50	32.24	30.00	30.00	90.00	30.00	75.00	45.79
1996	30.00	40.00	53.00	32.50	31.88	27.86	30.00	80.00	30.00	55.00	41.02
1997	35.00	40.00	46.25	32.50	31.88	27.86	30.00	80.00	30.83	60.00	41.43
1998	35.00	40.00	33.75	33.44	31.60	33.21	30.00	107.50	30.00	30.00	40.45
1999	35.00	40.00	33.75	33.44	32.17	33.93	30.00	107.50	31.25	30.00	40.75
2000	40.00	40.00	33.75	33.13	32.40	38.93	30.00	107.50	32.92	30.00	41.86
2001	40.00	40.00	33.75	33.13	33.00	41.96	43.33	107.50	33.75	30.00	43.64
2002	40.00	50.00	30.00	33.13	35.00	41.25	43.33	95.00	33.96	30.00	43.17
2003	40.00	50.00	31.25	45.00	36.35	41.96	50.60	100.00	38.75	30.00	46.33
2004	41.25	50.00	33.00	45.00	36.25	41.96	50.00	100.00	38.75	30.00	46.62
2005	41.25	50.00	33.75	46.25	38.08	44.29	50.00	100.00	42.08	30.00	47.57
2006	41.25	50.00	33.75	55.00	41.73	52.68	50.00	100.00	43.75	50.00	51.81
2007	43.75	50.00	50.00	55.00	55.00	52.68	50.00	120.00	43.75	75.00	59.51

Source: Monthly Statistical Bulletins, Federal Bureau of Statistics.