Khyber Pakhtunkhwa
Health Sector Situation Analysis

December 2010

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Abbreviations

ADP	Annual Development Programme
ARI	Acute Respiratory Infection
BHU	Basic Health Unit
BISP	Benazir Income Support Programme
BoD	Burden of Disease
CESSD	Communication for Effective Social Services Delivery
CDS	Comprehensive Development Strategy
CIET	Community Information Empowerment & Training
CMW	Community Midwife
DAD	Donor Assistance Database
DALYs	Disability Adjusted Life Years
DHDCs	Divisional Health Development Centres
DHIS	District Health Information System
DHOs	District Health Officers
DHQ	District Headquarter Hospitals
DoH	Health Department
TB DOTS	Tuberculosis Directly Observed Treatment Short Course
EDO-H	Executive District Officer of Health
EmOC	Emergency Obstetric Care
EPI	Expanded Programme on Immunisation
FATA	Federally Administered Tribal Areas
FLCFs	First Level Care Facilities
FY	Financial Year
GDP	Gross Domestic Product
GoP	Government of Pakistan
HMIS	Health Management Information Systems
HSRU	Health Sector Reform Unit
IDPs	Internally Displaced Persons
IQHCS	Improving Quality of Health Care Services
IRNUM	Institute of Radiotherapy and Nuclear Medicine
LHV	Lady Health Visitor
LHW	Lady Health Worker
LRH	Lady Reading Hospital
MCC	Medicine Coordination Cell
MCH	Mother and Child Health
MDGs	Millennium Development Goals
MICS	Multi-Indicator Cluster Survey
MMR	Maternal mortality ratio
MNCH	Maternal Neo-natal and Child Health
MO	Medical Officer
MRC	Medical Rehabilitation Centre

MS	Medical Superintendent
MTBF	Medium Term Budgetary Framework
MTDF	Medium Term Development Framework
NACP	National AIDS Control Programme
NFC	National Finance Commission
NGO	Non Government Organisation
NHP	National Health Policy
NIPS	National Institute of Population Studies
NP FP&PHC	National Programme for Family Planning and Primary Health Care
NWFP	North Western Frontier Province (previous name for Khyber Pakhtunkhwa)
PAC	Public Accounts Committee
PAEC	Pakistan Atomic Energy Commission
PBM	Pakistan Bait-ul-Maal
PDHS	Pakistan Demographic and Health Survey
PHDC	Provincial Health Development Centres
PHSA	Provincial Health Services Academy
PIDE	Pakistan Institute of Development Economics
PM&DC	Pakistan Medical and Dental Council
PNC	Pakistan Nursing Council
PPHI	People's Primary Healthcare Initiative
PRSP II	Poverty Reduction Strategy Paper II
PSLM	Pakistan Social and Living Standards Measurement
RHC	Rural Health Centre
Rs.	Rupees
SECP	Security and Exchange Commission of Pakistan
TB	Tuberculosis
THQ	Tehsil Headquarter Hospital
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WAPDA	Water and Power Development Authority
WB	World Bank
WHO	World Health Organisation
WMO	Women Medical Officer

Introduction

Context

After seven years of conflict and insecurity inhibiting economic growth and social progress, the government of Khyber Pakhtunkhwa has developed a Comprehensive Development Strategy (CDS). The CDS' vision is of 'attaining a secure, just and prosperous society through socio-economic and human resource development, creation of equal opportunities, good governance and optimal utilisation of resources in a sustainable manner.[1] The CDS outlines goals, strategies and priority programmes for all sectors. To ensure coherent implementation, the priority programmes are budgeted within a newly introduced Medium Term Budgetary Framework (MTBF).

The strategy for the health sector[2] based on the strategic directions and priorities of the CDS has been developed by the government in consultation with stakeholders. The strategy incorporates priorities reflected in; the draft National Health Policy (2010), national policies designed to achieve the health related MDG targets of 2015, the Medium Term Development Framework (MTDF), and the Poverty Reduction Strategy Paper (PRSP-II).

The cost estimates of the CDS estimate that health will receive, on average, 11% of available domestic financing.[3]

Rationale

Health systems should improve the health status of individuals, families and communities; defend the population against what threatens its health; protect people against the financial consequences of ill-health; provide equitable access to people-centred care and make it possible for people to participate in decisions affecting their health and health system.[4] In Khyber Pakhtunkhwa, as in other parts of the country, the quality of health services is often poor, resulting in a waste of both government and household resources and having little impact on health outcomes.

Goal and Priority Outcomes

The goal of the Health Department (DoH), to be accomplished in partnership with stakeholders is 'to improve the health status of the population in the province through ensuring access to a high quality and responsive healthcare delivery system which provides acceptable and affordable services in an equitable manner.[5] This includes achieving the targets set for the MDGs (2015). The priority areas for health from the CDS have been formulated into five health outcomes, budgeted in the MTBF. These are:

[1] As expressed in the government of Khyber Pakhunkhwa 'Comprehensive Development Strategy 2010-2017' April 2010
[2] Hereafter referred to as 'the strategy'
[3] CDS
[4] World Health Organisation
[5] CDS

Outcome 1: Enhancing coverage and access to essential health services especially for the poor and vulnerable.
Outcome 2: A measurable reduction in morbidity and mortality due to common diseases especially among vulnerable segments of the population.
Outcome 3: Improved human resource management.
Outcome 4: Improved governance and accountability.
Outcome 5: Improved regulation and quality assurance.

While objectives have been determined for each of the outcomes, the following indicators will be tracked for monitoring the success (or otherwise) of the strategy overall.

Indicator
Infant Mortality Rate (IMR) per 1,000 live births – MDG 4
Proportion of fully immunised children – MDG 4
Maternal Mortality Ratio (MMR) per 100,000 live births – MDG 5
Contraceptive Prevalence Rate (CPR) – MDG 5
% of public healthcare institutions which meet quality standards
% population living below the poverty line with access to the Minimum Health Service Package (MHSP) for primary and secondary healthcare services.
People with non-communicable diseases will receive quality care and have access to preventive education.
% of all health department staff which meet the skills requirements of their position.
Policy, resource allocation and flow of funds demonstrably match the needs of target populations ascertained by the DHIS and other programme MISs.

Implementation: Key Considerations

The implementation of the strategy will contribute to provincial governance reforms, peace building and the long term reforms agenda of the health sector through addressing health system weaknesses and by supporting enabling factors.

Implementation will improve the quality of health services through increasing resources (financial, human, material); strengthening monitoring, supervision and regulatory roles at facility, district and provincial levels; regulating the quality and availability of private health sector services and developing stronger partnerships with key stakeholders, primarily the community. Resource allocation decisions will be made on a rational basis, optimising the provision and utlisation of services and resources.

The strategy includes objectives and initiatives that contribute to more than one health outcome and include all levels of health service provision (primary, secondary and tertiary care). For example, high priority is given to dealing with emergency situations and disaster risk reduction and

management. High priority is also given by the DoH to the provision of an essential basic healthcare package including promotive, preventive, curative and rehabilitative health services to the community. The aim is to use available resources efficiently and effectively to provide a high standard of care, as measured by international standards, and to make healthcare affordable and accessible, giving preference to the poor and marginalised. Priorities include improving health facilities; ensuring staff availability; providing functional equipment and continual and adequate supplies of drugs and medicines.[6]

Planned investments in housing, education, transport, water and sanitation and the provision of social protection will contribute to improved health outcomes.

The CDS provides the impetus for strong coordination and collaboration between the various sectors with the role of the Planning and Development department (P&D) being essential.

Cross-cutting strategies, for example the CDS, the Malakand Comprehensive Stabilisation and Socio-Economic Development Strategy, the Post Crisis Needs Assessment (PCNA) carried out for Khyber Pakhtunkhwa and Federally Administered Tribal Areas (FATA) to promote peace building must be given consideration particularly in the development of action plans to ensure impact and the efficient utilisation of resources.[7]

This Strategy addresses issues, and proposes strategies designed to improve performance across the health sector. The Strategy focuses on areas that the government can influence and on coordination with the private and non-government sector. It is recognised that acceptance of the strategy by the private, non-government sector will be voluntary.

The responsibilities of different levels of government (Federal, Provincial and District) are now undergoing a major review following the abolition of the Local Government Ordinance of 2001, the 7th National Finance Commission (NFC) award and the passage of the 18th Amendment to the Constitution. This has changed the mandate of several Federal Ministries including the Ministry of Health (MoH), and expanded the role and responsibilities of institutions and administrative structures at the provincial level effective from June 30, 2011. These changes will influence the terms of engagement of international partners with both the federal and provincial governments.

These developments give impetus to the plan to review the role and subsequently the organisational structure of the DoH. It is likely in future that the DoH will focus more on stewardship, regulation of health service provision, managing potential innovations in financing mechanisms for health care provision in and developing policies and initiatives that enable synergies and reduce duplication in service provision between the private and public sectors.

[6] Comprehensive Development Strategy
[7] Comprehensive Development Strategy

The Strategy Document

Part 1 of the draft strategy outlines the challenges for each health outcome.

Part 2 identifies key objectives and strategies to ensure improved health outcomes.

Part 3 gives the list of performance indicators for the strategy from 2010-2017

Part 4 gives an analysis of health expenditure including an analysis of the gap between expenditure and CDS projections.

Part 5 provides the funding implications of the activities identified in the strategy

Part 6 provides the Implementation and Monitoring mechanism for the Strategy

Annex 1 describes the strategic development process and lists the stakeholders who were consulted.

This separate volume provides additional information on the current situation for the health sector in Khyber Pakhtunkhwa province.

Situation Analysis – Health Sector in Khyber Pakhtunkhwa

Demographics

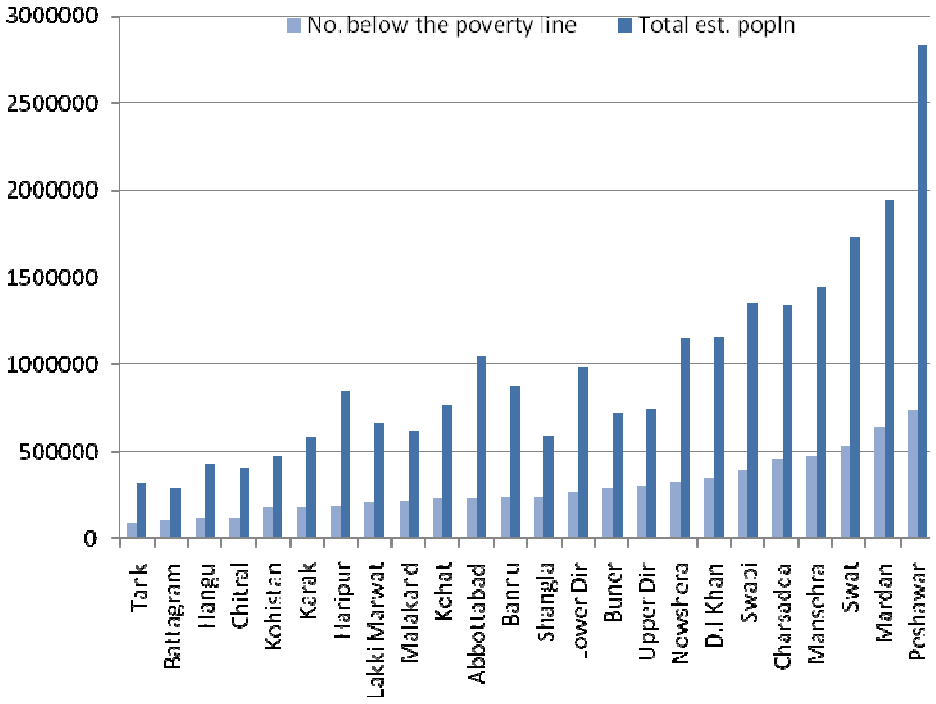
Sources: Much of the information on the standard of living in Khyber Pakhtunkhwa is provided by the national Household Income and Expenditure Survey (HIES, 2001/02) and the Pakistan Social and Living Standards Measurement Survey (PSLM 2005/06). The Pakistan Demographic and Health Survey (PDHS, 2006/07) provides additional information along with the Multiple Indicator Cluster Survey (MICS) (2008).

Population: Pakistan is the sixth most populous country in the world, with a population of over 170 million. Official estimates place the population of Khyber Pakhtunkhwa at 22.2 million in 2009, up from 17.7million in 1998. [8] In addition, it is estimated that there are more than 3 million Afghan refugees living in the province. The population is young with 72% of the population under 30 years of age[9] and 47% under the age of 15. [10] Just over 3% of the population is 65 years or older. The average household size at close to eight people is the highest household size in Pakistan.

Poverty Profile: A large body of evidence establishes a strong link between poverty and lower health status. 31% of the Khyber Pakhtunkhwa population live below the poverty line with poverty highest in Shangla/ Upper Dir while also being high in Bonair, Kohistan and Battagram (Figure A.1). In these areas, small landholding has resulted in limited agriculture, self-employment or share-cropping leading to limited job opportunities.[11] The dependency ratio in Khyber Pakhtunkhwa is around 100, i.e. for every independent person there is one dependent person. The national average is 88.3.[12] While the districts of Haripur, Peshawar and Nowshera in Khyber Pakhtunkhwa are comparatively better off, the Districts of Kohistan, Shangla and Karak have a low level of economic development.

[8] Government of Khyber Pakhunkhwa 'Comprehensive Development Strategy 2010-2017' April 2010
[9] National Institute of Population Studies (NIPS) Pakistan, and Macro International Inc. 2008. Pakistan Demographic and Health Survey 2006-07. Islamabad, Pakistan: National Institute of Population Studies and Macro International Inc.
[10] Government of Khyber Pakhunkhwa 'Comprehensive Development Strategy 2010-2017' April 2010
[11] Iftikhar A. Cheema, "A Profile of Poverty in Pakistan," Centre for Research on Poverty Reduction and Income Distribution, Planning Commission, Islamabad: 2005
[12] Federal Bureau of Statistics, "Household Integrated Economic Survey 2005 – 06," Government of Pakistan Statistics Division, Islamabad: 2007

Figure A.1 Population below the Poverty Line by District



Source: 'A Profile of Poverty in Pakistan' (data table in Annex) and predicted population figures.

Gender Inequality: While there has been an increase in the number of girls attending school in Khyber Pakhtunkhwa, the rate remains significantly lower than for boys. Employment rates for women are low and representation in government and senior decision-making positions is limited. Most women are economically dependent and carry out most of the household work. The traditional roles of women have changed little in the last few decades and there are serious concerns about violence against women.

Illiteracy: The demand for higher quality healthcare increases with education. While literacy has increased in Khyber Pakhtunkhwa, from 37% in 1998 to 47% in 2006, it is still below the national average.

Water Borne Diseases: Diseases borne in water are a huge problem for the population of Khyber Pakhtunkhwa, with only 47% of households with tap water and 61% with safe sanitation.[13]

Road Transport: The road transport network is important for access to health facilities, especially for emergencies. 44% of the provincial roads and 78% of district roads are in poor or bad condition.[14]

[13] As quoted in the Comprehensive Development Strategy, from NWFP Development Statistics, NWFP White Paper, 2008-2009 and sourced from the Demographic Health Survey
[14] Government of Khyber Pakhtunkhwa 'Comprehensive Development Strategy, 2010-2017;, April 2010

Internally Displaced Persons (IDPs)[15]

During the last 3 years, there has been an insurgency during which militants have stepped up their activities in Khyber Pakhtunkhwa (then the North Western Frontier Province) and the Federally Administered Tribal Areas (FATA). Security personnel and their families, teachers and medical personnel were attacked, schools destroyed (especially girls' schools), vaccination campaigns were prevented, NGOs and journalists threatened and male children forced into the ranks of the militants. The government started an active campaign to curb the militancy in mid 2008 and in mid 2009, military operations were launched on several fronts, including in Lower Dir, Buner and Swat Districts, leading to the sudden and massive movement of people to safer areas of the Province, in particular to the low-lying districts of the Peshawar valley (Peshawar, Mardan, Swabi, Charsadda, and Nowshera Districts). At its peak, between late April and mid-July 2009, around 2.7 million civilians fled the generalised violence. As the operations by Pakistan military succeeded and increasingly more areas were cleared of insurgents, the IDPs started returning to their homes. By the end of 2009 more than 1.6 million people (237,000 families) who had been living in camps and host communities had returned to their places of origin in Swat and Buner. More recently, operations were launched in the Waziristan area causing further displacement from the Agency. It is estimated that over 260,000 people (37,000 families) had been displaced (registered and verified) from Waziristan mainly to DI Khan and Tank. For over three years, Kurram Agency has faced security related problems and a large number of families have moved as IDPs to Kohat, Hangu and Peshawar districts. Recent military operations in Orakzai Agency have also resulted in IDPs moving to Kohat, Hangu and Peshawar districts.

Damage due to Conflict

Although there have been damages to health infrastructure in other parts of the province, Malakand district has been the worst affected. The estimated cost of damages to the health sector in the affected areas of this district is Rs. 502 million. Overall in the province the damages reported in the affected areas were approximately 29% of the total health facilities including hospitals, rural health centres (RHCs) and basic health units (BHUs). The cost estimated for reconstruction of these damaged health facilities is Rs. 942.4 million (US$ 12 million). There needs to be continued provision of preventive and curative health services including psycho-social care to the crisis affected population. The Malakand Strategy involves a range of sectors and aims to address the underlying grievances fuelling the unrest through a phased programme of return, recovery and the restoration of services, followed by development. The implementation of the Malakand Strategy will be coordinated by the Provincial Relief, Rehabilitation and Settlement Authority. [16] The DoH will work in close collaboration with this authority.

Health Status

This section provides information that is available on the burden of types of diseases and the prevalence of high-priority communicable and non-communicable diseases.

[15] Pakistan Humanitarian Response Plan 2010 United Nations from website browsed on 12th May 2010. http://ochaonline.un.org/humanitarianappeal/webpage.asp

[16] Government of Khyber Pakhtunkhwa 'Comprehensive Development Strategy 2010-2017' April 2010

Burden of Disease

The assessment of health status has remained a major challenge for health sector planning in Pakistan. According to the Pakistan Burden of Disease Report (1996), around 38% of the total burden of disease (BoD) is attributable to poverty related communicable diseases.[17] A further 38% is credited to non-communicable diseases. Maternal and peri-natal conditions along with injuries make up the remaining BoD (Table A.1).

Table A-1 Burden of Disease in Percentage of the Total Number of DALYs lost in 1996[18].

Group	Diseases	% of DALYs lost	Group total
Communicable Diseases	Infectious and parasitic	20.4	
	Respiratory Infections	8.1	
	Childhood Cluster	6.7	38.4
	Sexually Transmitted	2.2	
	Tropical Cluster	1.0	
Non Communicable Diseases	Cardiovascular	10.0	
	Nutrition/Endocrine	5.48	20.1
	Malignant Neoplasm	4.8	
	Congenital Abnormalities	3.5	
	Digestive System	3.4	
	Chronic Respiratory	3.4	17.6
	Neuro-psychiatric	2.6	
	Other non-communicable	4.9	
Maternal and Peri-natal Conditions	Maternal	2.8	12.5
	Peri-natal	9.7	
Injuries		11.4	11.4
Total			**100.00**

Maternal Health

The recent Pakistan Demographic and Health survey (PDHS) has established a Maternal Mortality Ratio (MMR) for the province of 275 maternal deaths per 100,000 live births (Table A.2).[19] Most of these deaths are caused by postpartum hemorrhage, puerperal sepsis or due to eclampsia. The provision of antenatal care, safe delivery practices and postnatal checkups would significantly

[17] Burden of Disease (BoD), as measured by Disability Adjusted Life Years (DALYs), determines the losses of healthy life in the form of disability and mortality due to all episodes of disease and injures occurring in a given year.
[18] Pakistan: Towards Health Sector Strategy, World Bank 1998
[19] National Institute of Population Studies and Macro International Inc., "Pakistan Demographic and Health Survey 2006 – 2007," National Institute of Population Studies, Islamabad: 2008

reduce the number of deaths.

At present in the province only 50% of women receive any form of ante-natal care and only 25% are receiving any form of post-natal care from a skilled birth attendant. The majority consider it unnecessary. Other reasons given include the cost, distance, lack of transport and not receiving permission from their family.

Table A-2 Indicators of Maternal Health by Province

Region	Maternal Mortality Ratio [deaths]	% prenatal/postnatal care from a skilled provider	% receiving 2 or more TT injection during last pregnancy	% delivered in a health facility	% delivered by a skilled provider
Khyber Pakhtunkhwa	275	51 / 27	43	30	38
Punjab	227	61 / 40	59	33	38
Sindh	314	70 / 60	51	42	44
Balochistan	785	41 / 41	30	18	23
Pakistan	276	61 / 43	53	34	39

Source: Pakistan Demographic and Health Survey 2006 – 2007, National Institute of Population Studies

The attendance of skilled birth attendants (SBAs) at delivery has increased significantly from 28 % in the MICS 2001 to 41% in the MICS 2008. [20] [21] The more educated the woman and the wealthier the household, the more likely that a SBA will assist with the birth.

Approximately 39% of deliveries take place in institutions although this is more common in urban areas. Additionally, doctors are now delivering a third of all births. Nurses/midwives, Lady Health Visitor (LHVs) and Lady Health Workers (LHWs) assist few births (8% according to the PDHS) while 33.3% of births were delivered by traditional birth attendants. 29% of deliveries were assisted by others. Since 2001 there has been a significant rise in deliveries by SBAs in all districts. In Abbottabad, Nowshehra and Peshawar, slightly more than 50% of deliveries took place in health facilities, but only 17% and 19% in Kohistan and D.I.Khan respectively.

Women in Khyber Pakhtunkhwa who did not give birth in a health facility tended to either believe it was not necessary (48%) or felt that it cost too much (31%) (Table A.3). A further 12% said it was not customary to give birth in a health facility, 11 % said it was too far away and/or there was no transportation, 8% said their husband or family wouldn't allow it and 5% said they didn't trust the quality of the facility with a further 4% saying that the facility was not open. Only 1% said the reason was the lack of a female health provider.[22]

[20] A skilled attendant includes a doctor, nurse, midwife, lady health visitor and lady health worker.
[21] The recall period in the present survey is for the two years preceding the survey and in the previous survey it was one year.
[22] National Institute of Population Studies and Macro International Inc., "Pakistan Demographic and Health Survey 2006 – 2007," National Institute of Population Studies, Islamabad: 2008

Table A-3 Percentage for each Reason given by Women for Not Delivering in a Facility by Province 2006/07[23]

Province	Not neces-sary	Costs too much	Not Customary	Too far/ no transport	Husband / family not allow	No time	Don't trust facility poor quality	Facility not open	Other	No female providers
Khyber Pakhtunkhwa	48	31	12	11	8	5	5	4	3	1
Punjab	66	35	8	5	4	6	3	2	2	1
Balochi-stan	44	40	2	17	19	3	5	23	2	2
Sindh	47	50	4	7	6	3	4	6	1	1

Source: Planning and Development Department NWFP Multiple Indicator Cluster Survey 2008, Final Report Peshawar, NWFP.

Fertility and Contraceptive Prevalence

The total fertility rate for the province is 5.6 children (MICS 208). Around two-thirds of the 4 million women of reproductive age in the province are married and at any given time, around 10% are pregnant. Khyber Pakhtunkhwa's contraceptive prevalence rate at 38% according to the MICS (2008) is significantly higher than the 31% measured by the same survey seven years previously. The National MDG target however is 55%. Additionally, only one in five women are using modern methods (sterilisation, pill, IUD, injection, condom). The CPR is higher in urban areas, and varies significantly between districts. The unmet need for family planning has been estimated at 26%, down from 35% in 2000/01. [24]

Infant and Child Mortality

In Khyber Pakhtunkhwa, early childhood mortality rates are high, though they are lower than the national average (Table A.4). Persistent and high levels of neonatal mortality and a declining rate of child mortality demonstrate that programmes aimed at reducing child mortality such as immunisation and nutritional programmes are having an impact, but among older children. The rates of early childhood mortality are higher in rural areas, among mothers with little or no education and those from lower income groups. Neonatal deaths are almost entirely due to birth asphyxia, sepsis or prematurity while deaths in the post-neonatal period are mostly due to diaorrhea and pneumonia. The main causes of child deaths are diaorrhea and pneumonia together with injuries, measles and meningitis.[25]

[23] among women who had a live birth in the five years preceding the survey and who did not deliver the most recent birth in a health facility.
[24] Unmet need measurement in MICS is somewhat different than that used in other household surveys, such as the Demographic and Health Surveys (DHS). In DHS, more detailed information is collected on additional variables, such as postpartum amenorrhoea, and sexual activity. Results from the two types of surveys are strictly not comparable.
[25] National Institute of Population Studies and Macro International Inc., "Pakistan Demographic and Health Survey 2006 – 2007," National Institute of Population Studies, Islamabad: 2008

Table A-4 Early Childhood Mortality Rates by Province

Region	Neonatal Mortality	Post-neonatal Mortality	Infant Mortality	Child Mortality	Under-five Mortality
Khyber Pakhtunkhwa	41	22	63	13	75
Punjab	58	23	81	18	97
Sindh	53	28	81	22	101
Balochistan	30	18	49	11	59
Pakistan	54	24	78	18	94

Source: Pakistan Demographic and Health Survey 2006 – 2007, National Institute of Population Studies

Nutrition

In Pakistan, although the entire population is at risk of malnutrition, children under the age of five and pregnant and lactating women are the most vulnerable. Major nutritional problems include low birth weight due to poor maternal nutrition, protein energy malnutrition and anemia across various population groups and geographic areas. Inadequate intake of essential nutrients over a period of time leads to a deficiency of micronutrients, seriously affecting metabolic processes and resulting in malnourishment. A large number of deaths of children under-five in Pakistan are caused by infectious diseases such as respiratory and intestinal infection with malnutrition being an aggravating factor.[26]

The results for the province, from the latest National Nutrition Survey (2001/02) show 37% of children are underweight, 43% children suffer from stunting and 11% are wasted (Table A.5).

A higher percentage of children from rural areas are exclusively breastfed (46%) than urban areas (35%).[27] In 2008, 63% of children aged 6–59 months had received a high dose vitamin A supplement in the previous six months.[28]

Table A-5 Malnourishment in Children under Five Years of Age, by Province

Region	Underweight	Stunted	Wasted
Khyber Pakhtunkhwa	37	43	11
Punjab	35	33	12
Sindh	49	44	18
Balochistan	35	39	14
Pakistan	38	37	13

Source: National Nutrition Survey 2001 – 2002

[26] Pakistan Institute of Development Economics and Aga Khan University and Medical Centre, "National Nutrition Survey 2001 – 2002," Planning Commission, Government of Pakistan, Islamabad: 2004

[27] Planning and Development Department,NWFP Multiple Indicator Cluster Survey 2008, Final Report Peshawar, NWFP.

[28] Planning and Development Department,NWFP Multiple Indicator Cluster Survey 2008, Final Report Peshawar, NWFP.

Immunisation

64 % of children in Khyber Pakhtunkhwa between the ages of 12 to 23 months are fully immunised. While there is only a marginal difference between male and female children, there is a 17% difference between urban and rural areas (Table A.6). The rate of fully immunised children varies from one-third of the children in lowest income-group to over half in the upper most income-group. The rate of polio immunisation far exceeds the rate of immunisation of other antigens, while the rate of measles vaccination lags behind all others (65%).

Based on recall, it was found that 70% of children aged 12–23 months received the BCG vaccination, though this drops to 62% if the scar on the arm is also checked.[29]

Table A-6 Percentage of Children (12-23 months) Fully Immunised based on Record and Recall

Region	Urban	Rural	Male	Female	Total
Khyber Pakhtunkhwa	78	61	65	62	64
Punjab	87	71	75	76	76
Sindh	82	63	70	71	71
Balochistan	69	41	56	43	48
Pakistan	84	66	72	71	71

Source: Pakistan Social and Living Standard Measurement Survey, 2005 – 2006, Federal Bureau of Statistics as quoted in the MICS 2008

Communicable Diseases

Communicable diseases are the most significant health problems in Pakistan. Common causes of death and illness include 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.[30]

Acute Respiratory Infections and Diaorrhea: Pneumonia remains a leading cause of child mortality, accounting for a quarter of all post neonatal deaths. [31] Most deaths are caused by a failure to take the child to a health facility for treatment. Diaorrhea accounts for over 10% of all deaths among children in Pakistan. In Khyber Pakhtunkhwa only 40% of children with diaorrhea are taken to a health provider, far fewer than in other provinces of Pakistan. The MICS survey (2008) found that 43% of children under five in Khyber Pakhtunkhwa had recently had diarrhoea and only 36% of these had received oral rehydration therapy or increased fluids with continued feeding.

Polio: Pakistan is one of the four remaining countries, where polio is endemic and of the 89

[29] Planning and Development Department,NWFP Multiple Indicator Cluster Survey 2008, Final Report Peshawar, NWFP.
[30] Economic survey 2006-07
[31] National Institute of Population Studies and Macro International Inc., "Pakistan Demographic and Health Survey 2006 – 2007," National Institute of Population Studies, Islamabad: 2008

confirmed cases in 2009, 29 were in Khyber Pakhtunkhwa.[32] Several areas of Khyber Pakhtunkhwa and FATA have been inaccessible for vaccination due to active conflict, leaving many children unprotected. In 2010 17 cases were reported of which five are from Khyber Pakhtunkhwa, two each from Peshawar and one each from Swat, Charsadda and Lakki Marwat.[33] With the exception of two cases, all cases of 2009 and 2010 in Khyber Pakhtunkhwa and FATA are from areas experiencing a considerable period of insecurity.

Tuberculosis (TB): TB accounts for 5.1% of the total national burden of disease with approximately 1.5 million people in Pakistan living with the disease. The case detection rate in the province has improved from under 30% in 2002 to above 80% in 2007 since the launch of the National TB Control Programme and the national introduction of DOTS (Directly Observed Treatment Short Course).. .

HIV/AIDS: Pakistan is considered a low-level epidemic with a prevalence rate of less than 0.1% among the general population. Surveillance results however have found the rate to be increasing among high-risk groups.[34] Its prevention through public health education is important.

Malaria: Each year about half a million people suffer from malaria in Pakistan with 20% of these being from Khyber Pakhtunkhwa.[35] Malaria is bound to have increased in recent years due to prolonged electricity load-shedding and power outages which have forced people to sleep in the open, leaving themselves exposed to mosquito bites. According to the Ministry of Health, during the period July to December 2006, the total number of positive cases identified through active case detection (ACD) and passive case detection (PCD) was 83,600, of which 35% were falciparum malaria. The parasitic incidence by the end of 2006 was 0.5/1,000 population, and the incidence of falciparum malaria is reported to be 0.18/1,000 population (Government of Pakistan, 2007). According to the Pakistan Demographic and Health Survey (PDHS), only 3% households in Khyber Pakhtunkhwa were found to have at least one mosquito net in their possession while only a meager 0.1% actually used the mosquito net. Furthermore, of all married women in Khyber Pakhtunkhwa, almost 15% suffer from malaria during pregnancy but only 12% of them sought any treatment. The Annual Parasitic Incidence (API) for 2008 however was 1.5 lower than in 2005 when it was 2.18.[36]

Hepatitis: The Ministry of Health estimates, the prevalence of Hepatitis-B as being between 3% and 4% and Hepatitis-C as being between 5% and 6%. Community awareness of hepatitis remains low with less than one percent of women in Khyber Pakhtunkhwa knowing of the symptoms according to a survey conducted in 2000/01. A National Programme for the Prevention and Control of Hepatitis has been established and the EPI now

In Khyber Pakhtunkhwa /FATA all five distinct types of hepatitis viruses; A-E are prevalent. The

[32] Global Polio Eradication Initiative website http://www.polioeradication.org/casecount.asp
[33] Senior Surveillance Officer, WHO Polio Eradication Initiative 12th May 2010.
[34] Government of Pakistan, Ministry of Health, National AIDS Control Programme, "HIV Second Generation Surveillance in Pakistan: National Report Round I & II 2006-07," Islamabad: 2005 & 2006-07
[35] National Institute of Population Studies (NIPS) [Pakistan], and Macro International Inc. 2008. Pakistan Demographic and Health Survey 2006-07. Islamabad, Pakistan: National Institute of Population Studies and Macro International Inc.
[36] Annual Parasitic Incidence (A.P.I.) = Total no. of positive slides for parasite in a year x 1000 / Total population.

current estimated prevalence of Hepatitis B is 785,200 in Khyber Pakhtunkhwa and 124,000 in FATA. Hepatitis C is 1.18 million in Khyber Pakhtunkhwa and 190,000 infections in FATA. Unsafe injection and unhygienic invasive practices (Dentists, Barbers, Beauty Parlors, Ear and Nose Piercing etc.) appear to be the major causes of the disease in the province. Sporadic epidemics of Hepatitis E are also being encountered in all geographical areas of Khyber Pakhtunkhwa.

The overall social and economic impact of chronic Hepatitis B&C are devastating. The Prime Minister Programme for Prevention and Control of Hepatitis in Pakistan however was launched on August 29, 2005 to substantially decrease the prevalence, morbidity and mortality due to viral hepatitis in the general population by utilising the existing health infrastructure.[37]

Non Communicable Diseases (NCDs)

Pakistan is facing an increasing burden of NCDs with increasing life expectancy and the high prevalence of risk factors. In addition to the NCDs listed below, estimates indicate that there are one million severely mentally ill and over 10 million individuals with neurotic mental illnesses within the country. Furthermore, 1.4 million road traffic crashes were reported in the country in the year 1999. of these, 7000 resulted in fatalities.

Diabetes: The number of people with diabetes is increasing due to population growth, aging, urbanisation, and increasing prevalence of obesity and physical inactivity. Pakistan is among the top ten countries in the world with high diabetes prevalence with around 5.2 million people in 2000 with numbers likely to increase to 13.9 million people in 2030. [38]

Coronary artery disease: One in four adults over the age of 40 years (26.9%) suffers from coronary artery disease, due to the high prevalence of known risk factors, including smoking (41% among men and 7% among women aged over 18 years of age); high blood pressure (24% of the population over 18 years of age), raised cholesterol (34% of people over 40 years of age), and overweight (28% of urban and and 23% of rural adults over 18 years of age respectively).[39]

Smoking: Tobacco use in Pakistan is common. There are about 22 million smokers in the country with 55% of the households having at least one individual who smokes tobacco. In Pakistan about 100,000 people die annually from diseases caused by use of tobacco.

Child Disability: The MICS (2008) gave an estimate of 6% of children between the ages of two and nine having at least one disability ('unable to' or with 'a lot' of difficulty in seeing, hearing, moving, speaking and learning). Around 26% of children who are two years old are reported as not being able to name at least one object.[40]

Blindness: In Pakistan, 0.9% of the population is blind. In 2002-2004, the number of blind people

[37] Download from www.healthnwfp.gov.pk/downloads/hepatitis.doc on 23 June 2010
[38] Diabetes Care May 2004 vol. 27 no. 5 1047-1053
[39] Nishtar S. Population-based Surveillance of Non-communicable Diseases: 1st round, 2005; Heartfile, Ministry of Health and WHO 2006
[40] Planning and Development Department NWFP Multiple Indicator Cluster Survey 2008, Final Report Peshawar, NWFP.

in Khyber Pakhtunkhwa was 0.18 million[41] And the biggest cause of blindness was cataracts. Pakistan is a signatory to a global initiative 'Vision 2020- Right to Sight' and has a 5 year National Programme for Control of Blindness (2005-2010).

Substance Abuse: Recent figures estimate about 6 million addicts in the country.[42] The prevalence of opiate use has been estimated at 0.7% of the population, both nationally, and in Khyber Pakhtunkhwa. The number of injecting drug users in 2006 in the province was estimated at 8,000 [43] which is a problem for a number of reasons including the known link between injecting drug users and the spread of and HIV/AIDS and Hepatitis C.

Cancer: In Pakistan no reliable statistics are available but according to WHO estimates[44], over 200,000 cases are expected annually. Only 25-30% of these cancer cases however are seen by Oncologists according to the Pakistan Society of Clinical Oncology (PSCO) with treatment and diagnosis facilities being very limited.

Service Delivery

Levels of Government

As mentioned in the introduction, the three tiers of government have different roles and responsibilities in the health sector and are currently under review. Currently, the three levels comprise:

- **The Federal Level** which is responsible for designing and monitoring the National Health Policy. It also provides some tertiary healthcare services and support for the financing of healthcare and communicable disease prevention and control.
- **The Provincial Level** is responsible for the stewardship of the provincial health system including the provision of services where it has not been assigned to the Districts or to autonomous institutions. The DoH translates and implements national policy by supplying the required human resource (including the posting and transfer of staff), providing specialised care through its tertiary care hospitals and overseeing primary and secondary health services provided by district governments.
- **The District Level** delivers health services at the primary and secondary levels. Districts also implement federal and provincial funded health programmes and are responsible for equipping and maintaining facilities, ensuring supplies of medicines and staff attendance. Preventive services are managed by the Provincial level but implemented at the district level where the government is more or less the sole provider. The relationship between the district and the provincial level was changed following the Local Government Ordinance of 2001 through which a devolved system of government was introduced in the country.

Management and Organisation

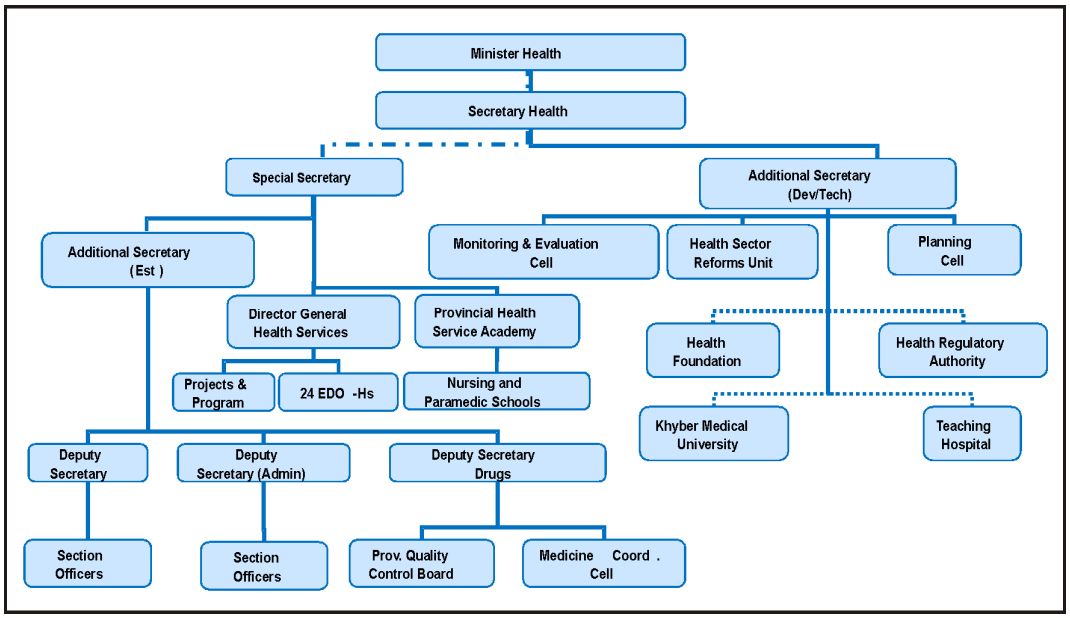
The DoH has the responsibility to ensure provision of quality health services to the people of

[41] National Survey on Blindness and Low Vision, Ministry of Health, 2002-2004
[42] Ministry of Narcotics Control (2009) Yearbook 2008-2009. Islamabad: Government of Pakistan
[43] The National Assessment on Problem Drug Use, 2006
[44] 180 cases/100,000 population

Khyber Pakhtunkhwa at an affordable cost. In terms of human resources, it is the second largest department in the Province with more than 30,000 employees.

The current organisational structure of the DoH is shown in Figure A.2. [45] The Minister for Health is responsible for policy level decisions and to provide a public representative perspective. The Secretary Health is the Principal Accounting Officer and responsible for the overall functioning of the DoH. The Director General of Health Services (DGHS) is responsible for the delivery of national primary health care programmes and secondary care health service provision at the district level. District health services are supervised and delivered by the EDO-Hs. There are a number of autonomous bodies such as the Health Regulatory Authority, the Health Foundation and the teaching hospitals/medical colleges which were set up under the legislative acts of the provincial assembly. A monitoring and evaluation cell was established in 2008.

Figure A.2 Organogram of the Health Secretariat



Health Management Information

While there is little information collected from the large private sector, there is a national Health Management Information System (HMIS) which provides a minimum set of information with a focus on priority health problems and service delivery needs. A District Health Information System (DHIS) has been developed which includes the hospital sector and is currently being implemented in 14 districts in Khyber Pakhtunkhwa.

Regulation

The government of Khyber Pakhtunkhwa has initiated efforts for the regulation of the heath sector, both public as well as private through the Health Regulatory Authority (HRA) which was established in 2006. The HRA has to-date registered around 1100 private practitioners in the province.

[45] Reorganization of Health Department NWFP - Institutional Analysis Report. Dr Mir Ajmal Hamid, December 2007

Health Department Facilities

The DoH oversees the three tiers of public health delivery system in Khyber Pakhtunkhwa: the primary healthcare facilities (BHUs and RHCs), the secondary care hospitals (District and Tehsil Headquarter hospitals) and the tertiary care/teaching hospitals. In theory the system is designed to deliver the bulk of services through health centres (RHCs, BHUs) and community outreach services (the Lady Health Workers).

There are 86 RHCs, 786 BHUs and 66 maternal and child health (MCH) centres for expectant mothers and newborns (Table A.7). There is only one hospital per 135,000 persons and in rural areas there is one RHC per 224,000 persons and one BHU available for around 25,000. [46] In 2008, over 740 facilities had at least one Lady Health Worker attached to them.

Table A-7 Health Care Facilities of Khyber Pakhtunkhwa, Health Department

Type	Number
Teaching Hospital	8
District Headquarter hospital	21
Tehsil Headquarter hospital	19
Other hospitals (Civil and specialised hospitals)	125
Rural Heath Centre	86
Basic Health Unit	784
Dispensaries	421
Mother and Child Health Centre	66
Sub Health Centre	26
Other (T.B centres, leprosy clinics)	60
Total	**1616**

Source: Khyber Pakhtunkhwa DHIS cell, 4th June 2010

Given a rural population in Khyber Pakhtunkhwa of over 20 million, there should be over 380 RHCs and over 1280 BHUs, if population was to be the only criteria although as indicated above, the numbers are far lower than this.[47] Only 72% of households in Khyber Pakhtunkhwa have a health facility within their community. A significant number of people, particularly in remote rural areas have difficulty accessing primary healthcare. The PSLM survey (2007/08) found that 43% of people in rural areas who sought treatment for diaorrhea and who did not visit a government facility first, gave the reason that either there was no government facility or that it was too far away. A further 15% said that a doctor was never available and a further 13% that the staff were not courteous. Where there is not a local facility within the community, the average distance in rural areas is about 10 kilometres which is around three times the distance in urban areas.[48]

[46] From the DHIS, April 2010 and national population projections.
[47] From the DHIS, April 2010 and national population projections.
[48] Planning and Development Department NWFP Multiple Indicator Cluster Survey 2008, Final Report Peshawar, NWFP.

BHUs in the province are underutilised and an expensive use of highly trained staff. In 2005, a study found that BHUs saw on average 16 patients a day, most of whom were diagnosed with ARI and diaorrhea. Salaries made up 91% of the recurrent cost with 20% for the medical officer, 55% for other medical staff and 25% for other staff. Only Rs.10 per patient was spent on supplies (mainly drugs). A study of the health facilities found that in most cases the only available medical equipment was a stethoscope and/or a thermometer.[49] There is often limited water and electricity available and needs based assessments are not driving the building and upgrading of facilities in addition to an overall lack of funds for maintenance.[50]

Where there are facilities, chronic staff shortages and non-availability of essential medicines is common. In the Community Information Empowerment & Training (CIET) survey (2004), only 9% of the patients who had used a government facility had received all of their prescribed medicines. [51] This is a common reason why most patient (67%), consult the private provider rather than go to their local facility.[52] The CIET social audit found people were increasingly using unqualified practitioners who were considered accessible, provided cheap medicines and people had faith in them.[53] [54] In urban areas, with its greater access to alternative healthcare facilities, people were more likely to prefer private medical facilities than in rural areas. [55]

Health Workforce, Training and Education

A skilled and competent workforce is central to delivering quality healthcare. Table A.8 lists the number of registered doctors, dentists and nurses in the province.

Table A-8 Number of registered Doctors, Dentist and Nurses in Khyber Pakhtunkhwa

Designation	Strength
Registered doctors (GPS)	12789
and specialist doctors	3066
Total	**15855**
Registered dentists	1435
and specialist dentist	101
Total	**1536**
Population of Khyber Pakhtunkhwa, 2009 est. 23,295,611	
Population per doctor	1469
Population per dentist	15166

Note: Registration figures from the Pakistan Medical and Dental Council, February 2010.

[49] Treatment cost at the Basic Health Units in NWFP and FATA of Pakistan during the year 2005, by Muhammad Ashar Malik, November 2006
[50] National Health Policy, 2010
[51] http://www.ciet.org/en/documents/projects_library_docs/2006224175348.pdf
[52] PSLM 2004-2005
[53] http://www.ciet.org/en/documents/projects_library_docs/2006224175348.pdf
[54] ibid
[55] The possible reversal of decentralization in Pakistan, William J Carter etc.

The number of doctors, dentists and nurses employed by the DoH as of May 2010 is listed in Table A.9.[56] The highest percentage of vacancies is for district specialists (44%) followed by dentists (27%)

Table A-9 Designation and Number of Doctors, Dentists and Nurses Employed by the Health Department

Designation	Strength	Filled positions	% Vacant
Medical Officers (including Senior Medical officers	3650	3036	17
Dental surgeons	236	173	26
District specialists	485	273	44
Nurses	3560	2966	17
Population of Khyber Pakhtunkhwa, 2009 est. 23,295,611			
Population per public- sector doctor	6,382	7,673	
Population per public district specialist	48,032	85,332	
Population per public- sector dentist	99,710	134,657	
Population per public- sector nurse	6,544	7,854	

Note: Figures from Health Department, May 2010

Provincial Health Services Academy (PHSA): The PHSA manages 26 institutions: Six District Health Development Centres (DHDCs), a nursing college, eight schools of nursing, four paramedic institutes and six public health schools. PHSA has academic associations with the University of Wollongong (Australi a), Nuffield institute (UK) and Heidelberg University (Germany) in areas of public health, hospital administration, health care financing and BSc. nursing.

Nurses, paramedics and other allied medical staff play an important role in the delivery of healthcare services and yet shortages continue to exist for their positions.

Paramedics: The paramedic institutes provide a two year course, producing on average, 200 technicians each year. These cover a range of specialties and the technicians are primarily absorbed in to the tertiary care hospitals with the exception of health technologists who are typically employed in BHUs and RHCs.

The Medical Faculty has recently started a training programme of “technologists” aimed towards advancing the education level of technicians and offering them a university based undergraduate BSc. degree to prepare them for independent practice. This programme is currently offered in nine specialties.

Nursing, Lady Health Visitors and Midwives: The education of nurses, LHVs and midwives is regulated by the Pakistan Nursing Council (PNC). The PNC designs the curriculum and admission requirements; approves new programmes, schools and institutions; sanctions positions for staff of nursing education institutions and maintains a computerised database of registered nurses.

[56] For the BPS scale, designation and numbers of doctors, dentists, nurses and paramedics see Annex 2

There are seven nursing schools (six public and one private) in Khyber Pakhtunkhwa which provide nursing, midwifery and Lady Health Visitor training. The Diploma in nursing takes three years to complete but it is not possible to get a BSc. in nursing in Khyber Pakhtunkhwa. There are also post-graduate diploma programmes teaching specialist skills and 275 LHVs graduating annually from the two year programme offered by the nursing schools.

Training of Doctors and Tertiary Healthcare Services: Tertiary hospitals provide specialist services, conduct clinical research and provide medical education and training. Hospital autonomy for tertiary care hospitals was granted in 1999 through 'the North Western Province Health and Medical institutions Reform Act'. There are four autonomous tertiary care hospitals in Khyber Pakhtunkhwa, located in large cities:

- Khyber teaching hospital, Peshawar
- Lady Reading hospital, Peshawar
- Hayatabad Medical Complex, Peshawar
- Ayub teaching hospital, Abbottabad

While the number of medical colleges in the public sector has doubled and there is a medical college in every divisional headquarter (Kohat, Bannu, DI Khan, Saidu Sharif, Mardan), with the attached hospital designated as teaching hospital, the four hospitals listed above are recognised by the Pakistan Medical and Dental Council (PM&DC) as teaching hospitals. The MTDF- goal of fostering a knowledge based economy resulted in further funds being available for tertiary healthcare in 2005-2010.[57]

Provision of Primary and Secondary Healthcare Services

The current health strategy has been to strengthen these facilities and provide the necessary back-up support in rural areas to ensure all outlets are functioning as focal points for Primary Health Care and Family Planning services. The DoH has developed a minimum Health Services Delivery Package to be made available to poor and vulnerable people. There are also quality standards which have been developed, but not yet implemented, for the delivery of primary and healthcare services.

Healthcare Programmes

The Provincial and district governments are implementing national health programmes which focus on cost effective interventions and service delivery of primary and preventive healthcare to the poor and vulnerable. These include the following: the National Programme of Family Planning and Primary Health care (15,746 allocated posts), the Provincial TB Programme; the Malaria Programme; the National Aids Control Program and the Provincial Hepatitis Awareness and Support Programme. The Roll-Back Malaria programme is implementing the national malaria strategy in all districts.

[57] Mid Term Review of Medium Term Development Framework 2005-2010, Planning Commission, Pakistan May 2008

The Provincial government is also delivering services and programs (some of them national programs) that aim to reduce the incidence of and/or to treat NCDs including substance abuse, mental and ophthalmic disease, emergency and accidents, the MNCH Programme and the Nutrition Programme.

Mother and Neo-natal Child Health Programme

There is a lack of skilled birth attendants available in the community. In 2008 there were a reported 737 Community Midwife (CMW) students in training under the Maternal and Neonatal child health programme. Twenty-two had graduated and were deployed in their villages.[58]

Emergency and Obstetric Care

Studies have shown that the number of hours taken to reach an institution with emergency obstetric facilities plays a critical role in deciding the fate of delivery and the subsequent health of the child and the mother. The challenge is to ensure the 24/7 availability of basic and comprehensive emergency obstetric care (EmOC) services, geographically distributed to maximise access for the greatest number of women, especially in rural areas. According to UN recommendations, there should be at least one comprehensive and four basic EmOC facilities per 500,000 population.[59] As per this standard the province has sufficient comprehensive EmOC services to cover only 40% of the population and only 10% of health facilities provide basic EmOC services.[60] It is estimated that over 75% of women experiencing obstetric complications may not be receiving life saving care. Caesarean deliveries in the past two years were estimated at 3% of all deliveries, lower than what would be expected. Caesarean sections are either underutilised or unavailable.[61]

People's Primary Health Care Initiative (PPHI)

In 2007 with the aim of improving the delivery of primary health care, the management of the BHUs was contracted out by a number of districts to the Sarhad Rural Support Programme (SRSP). There are currently 11 districts with BHUs participating in the PPHI in Khyber Pakhtunkhwak: Charsadda, Chitral, Haripur, Karak, Kohat, Malakand, Mardan, Nowshera, Peshawar, Swabi and Upper Dir.

This has reportedly led to improvements in the provision of curative services including the availability of medicines and the infrastructure of the BHU. However, the level of preventive services does not appear to have improved. There is some debate on whether increased delegation and a focus on managing for performance would have enabled the District

[58]Government of Pakistan submission to 'Convention on the Rights of the Child', 1 September 2009, to the Committee of the Rights of the Child, 52nd session, www2.ohchr.org/english/bodies/crc/.../CRC.C.PAK.Q.3-4.Add.1.doc
[59] Quoted in "Emergency Obstetric Care Availability, Accessibility and Utilisation in Eight districts in Pakistan's North West Frontier Province." Moazzam Ali, Mohammad Ayaz, Humayun Rizwan, Saima Hashim, Chushi Kuroiwa Abbottabad, 2006
[60] Emergency Obstetric Care Availability, Accessibility and Utilisation in eight districts in Pakistan's North West Frontier Province. Moazzam Ali, Mohammad Ayaz, Humayun Rizwan, Saima Hashim, Chushi Kuroiwa Abbottabad, 2006
[61] Emergency Obstetric Care Availability, Accessibility and Utilisation in eight districts in Pakistan's North West Frontier Province. Moazzam Ali, Mohammad Ayaz, Humayun Rizwan, Saima Hashim, Chushi Kuroiwa Abbottabad, 2006

Management to have achieved the same results with greater improvements in preventive care.

Rehabilitation Services

The provision of rehabilitation services has been neglected by the health system. The importance and need for these services however became clear after the 2005 earthquake and with the increasing number of violent incidents, primarily bomb blasts with mass casualties and road traffic accidents. To cope with the thousands of people left disabled by the 2005 earthquake, ERRA established a Medical Rehabilitation Centre (MRC) in Abbottabad. Pakistan Institute of Prosthetic and Orthotic sciences (PIPOS) previously known as PETCOT, is currently providing rehabilitative services at Hayatabad Peshawar as well as through its rehabilitative centres at 5 districts of Khyber Pakhtunkhwa. PIPOS also offers bachelor degree in prosthetics and orthotics.

There are also physiotherapy units in various hospitals and artificial limbs centres in the Khyber Teaching Hospital and Hayatabad Peshawar.

The government plans to develop the proposed Benazir Shaheed Hospital in Peshawar as a centre for rehabilitative medicine in addition to providing funds for the MRC in Abbottabad.

Public-Private Partnership

The DoH has entered into several contracts with the private sector, namely non-governmental organisations (NGOs). In two instances, the government has contracted an NGO for the provision of health services. Firstly, a contract with the Abaseen Foundation covers the provision of services from one RHC and secondly, ,under the PPHI, an NGO has been contracted to cover the provision of services from all BHUs within eleven different districts. In addition, there is an agreement for the provision of services by Aga Khan Health Service, Pakistan from a RHC in Chitral. The government has also partnered with private medical universities to allow them to affiliate with government hospitals for use in training students.

The DoH with support from Save the Children in Battagram district is implementing a public private partnership project entitled “Revitalising and Improving Primary Health Care Services” (RIPHCS). This project, funded by the World Bank aims to strengthen the quality of health care services in Battagram through mandating Save the Children to organise and manage its health care services.

Non DoH Public Service Facilities

Along with a number of public sector organisations, the Pakistan International Airlines Corporation, the Pakistan Railways and Water and Power Development Authority (WAPDA) provide medical services to employees. The Military Lands & Cantonment Department is an attached department with Ministry of Defence. There are nine Cantonments in Khyber Pakhtunkhwa with hospitals / dispensaries providing healthcare to their employees and to the residents of the respective Cantonments.[62] The civilian population can pay to receive services from these facilities.

[62] National Health Accounts 2005

The Pakistan Atomic Energy Commission (PAEC) has established 13 Cancer hospitals in Pakistan with two in Khyber Pakhtunkhwa, the Institute of Radiotherapy and Nuclear Medicine (IRNUM) at Peshawar and the Institute of Nuclear Medicine, Oncology and Radiotherapy at Abbottabad. [63] While there is an IRNUM Patient Welfare Society for poor patients, there is no radiation machine for treatment of cancer in the health department facilities of the province.

Private Healthcare Providers

It is generally believed that approximately 70% of people seek healthcare from private providers.[64] Yet the private sector remains unregulated and very little information is available. There is a wide range of disparity in healthcare provision in the private sector ranging from hospitals using sophisticated technology to unauthorised general stores. There are also many different categories of Non-Allopathic service providers including Homeopaths (who may or may not have completed a formal qualification) and Hakims who are officially registered but are assumed to be non-qualified.

Alternate Healthcare Providers

There are many different categories of Non-Allopathic service providers who deal with patients in a wide variety of settings. These include Homeopaths who have either a homeopathy degree from a regular institution, have done correspondence courses or are practicing without any proper qualification. Hakims are officially registered but they are assumed to be non-qualified and not much research has been done in this field. There are 30 Tibbia Colleges in the private sector and one college in the public sector offering a four year diploma course in Tibb-e-Unani that follow the prescribed curriculum and conditions laid down in the regulations. A five year degree programme has been launched by the faculty of Eastern Medicine of Hamdard University, Karachi and the curricula are revised and standardised by the Higher Education Commission.

There are more than 50,000 Hakims/Tabibs and 450 vaids registered with National Council for Tibb as Medical Practitioners (Tabibs/Vaids).

Paying for Healthcare Services

Out-of-Pocket Spending

The households of Khyber Pakhtunkhwa have the highest share of out-of-pocket expenditure for health care (76.5%). Household out-of-pocket spending remains the main source for financing healthcare and there is no social health insurance to support the health of the people of Pakistan. With the high percentage of people below the poverty line, the high potential cost of healthcare and the high level of out-of-pocket spending access to healthcare services is often denied or leads to catastrophic spending which leaves families and households completely impoverished.

[63] Economic Survey 2006-07
[64] Asian Development Bank 'Technical Assistance to the Islamaic Republic of Pakistan for Health Sector Reform in North Western Frontier Province' 1999

In Pakistan, household spending accounted for 98% of total private expenditures on health in the year 2005 as compared to 90% on average for other low income countries. Out- of- pocket payments can lead to impoverishment and further hardship [65] and are particularly hard on the poor, whose illness will either remain untreated or force patients into deeper poverty. An analysis in 2002 showed that over 90% of expenditure on drugs and medicines in the Province was on private expenditure and that nearly 60% of expenditure on health was paid by households.[66]

In higher income countries, out-of-pocket expenditure is replaced with insurance. Private expenditures as a percentage of *total* health expenditures were relatively high at 82.5% in 2005.[67]

Social Protection

Social protection includes a set of interventions that can strengthen the capabilities of the poor to mitigate and manage risk and vulnerability. Pakistan's main social safety-net programs include; the institution of Zakat, Pakistan Bait-ul-Maal (PBM), the Workers Welfare Fund, Employees Social Security Institutions, the Workers Participation Fund, the Provincial Wheat subsidy and various food support programs. The Benazir Income Support Programme (BISP) was launched in October 2008 through which women below the poverty line are provided Rs. 1000 each month. The Benazir Income Support Programme is planning to launch a health insurance scheme for the poor in six selected districts of the country including Battagram in Khyber Pakhtunkhwa. There are also various microfinance institutions in the public and private sectors. The existing social protection systems are mostly cash based. However, in-kind support is also offered for relief and rehabilitation under conditions of natural calamities and for training and child labor rehabilitation activities.

Poor and under-privileged populations who are at risk of catastrophic health expenditures have no access to insurance while the Zakat and Baitulmal programs face a number of challenges. Combined, these programmes now reach two million of the eight million households that are vulnerable to chronic poverty. There are however problems with irregular, delayed and lumpy payments and while both programs aim to target the poor, there are problems with selection. Many non-poor households receive benefits and many poor households are excluded. The benefits received provide 5% to 8% of the income of poor beneficiaries and up to 15% of the income of the ultra poor.[68]

Private Health Insurance

Private insurance companies offer health insurance with group health insurance being offered by seven insurance companies, and individual health insurance by one insurance company (Allianz

[65] OPM Health Accounts, 2002
[66] OPM Health Accounts, 2002
[67] Lorenz. C., Out-of-pocket household health expenditures and their use in National Health Accounts: Evidence from Pakistan, Asia Health Policy Programme working paper #9, 2009. In most low- and lower-middle-income countries, private expenditure accounts for 50 to 75% of total health expenditure. But in most middle- and high-income economies, private expenditure accounts for less than 50% of the total. The high level of private expenditure and few national or private insurance schemes can result in illness easily drawing individuals into the poverty trap
[68] Comprehensive Development Strategy for KHYBER PAKHTUNKHWA, 2009

EFU). Because of the high expense, large companies self-insure or provide their own medical facilities for employees. The Security and Exchange Commission of Pakistan (SECP) under the Insurance Ordinance (2000) took over as the formal regulator of the insurance industry and has data available on insurance premiums and insurance claims for health for the years 2004 to 2007. [69] The Rural Support Programs through the Adamjee Insurance Company are offering micro health insurance to the clients of their micro credit schemes and the micro insurance product made available by the Aga Khan Development Network to the communities in some parts of the country through the First Micro Insurance Agency and New Jubilee Insurance.

[69] National Health Accounts, 2005

Annex 2 Population Trends by District

There are 24 districts in Khyber Pakhtunkhwa with populations ranging from around 300,000 to over 1.7 million

S. No	District of Khyber Pakhtunkhwa	Population 98 Census	Projected population 2009
1	Abbottabad	880,666	1,045,263
2	Bannu	675,667	879,161
3	Battagram	307,278	290,758
4	Buner	506,048	725,188
5	Charsadda	1,022,364	1,338,905
6	Chitral	318,689	403,691
7	D. I. Khan	852,995	1,156,915
8	Hangu	314,529	426,203
9	Haripur	692,228	850,411
10	Karak	430,796	584,288
11	Kohat	562,644	762,411
12	Kohistan	472,570	476,626
13	Lakki Marwat	490,025	658,531
14	Lower Dir	717,649	987,768
15	Malakand	452,291	619,108
16	Mansehra	1,152,839	1,444,170
17	Mardan	1,460,100	1,935,249
18	Nowshehra	874,373	1,147,210
19	Peshawar	2,026,851	2,831,020
20	Shangla	434,563	589,939
21	Swabi	1,026,804	1,354,686
22	Swat	1,257,602	1,723,023
23	Tank	238,216	319,248
24	Upper Dir	575,858	745,838
	Khyber Pakhtunkhwa	**17,743,645**	**23,295,611**

Annex 3 DoH Professional Staffing Complement

BPS Scale, Designation and Number of Doctors in the DoH, Khyber Pakhtunkhwa[70]

Table A-10 Medical Officers

BPS	DESIGNATION	STRENGTH	FILLED
17	Medical Officers	2292	195271
18	Senior Medical Officer	927	75272
19	Senior Medical Officer	397	316
20	Senior Medical Officer	35	16
	Total	**3650**	**3036**

Table A-11 Dental Surgeons

BPS	DESIGNATION	STRENGTH	FILLED
17	Dental Surgeons	146	105
18	Senior Dental Surgeons	64	48
19	Senior Dental Surgeons	24	19
20	Senior Dental Surgeons	2	1
	Total	**235**	**173**

Table A-12 District Specialists

BPS	DESIGNATION	STRENGTH	FILLED
18	District Specialists	350	18973
19	District Specialists	126	76
20	District Specialists	9	8
	Total	**485**	**273**

[70] Information on filled posts was received from the DGHS on 31 May 2010.
[71] 114 posts have been submitted for requisition through KHYBER PAKHTUNKHWA Public service Commission
[72] Promotion case of 115 doctors is under consideration
[73] 146 posts have been submitted for requisition through KHYBER PAKHTUNKHWA Public service Commission

Table A-13 Designation, and Numbers of Paramedics in the Health Department, Khyber Pakhtunkhwa

Para-medics	Total
Dental Technician	183
Pharmacy Technician	1767
Radiology Technician	371
Pathology Technician	841
Anesthesia Technician	285
Cardiology Technician	132
Surgical Technician	387
Dialysis Technician	20
Physiotherapy Technician	38
Primary Health Care (Multi – purpose)	3962
Primary Health Care (MCH)	989
Ophthalmic / Otorhinology Technician	37
Pulmonology Technician	21
Gastro-enterology Technician	2

Table A-14 Nursing Staff; Sanctioned, Filled and Vacant Posts

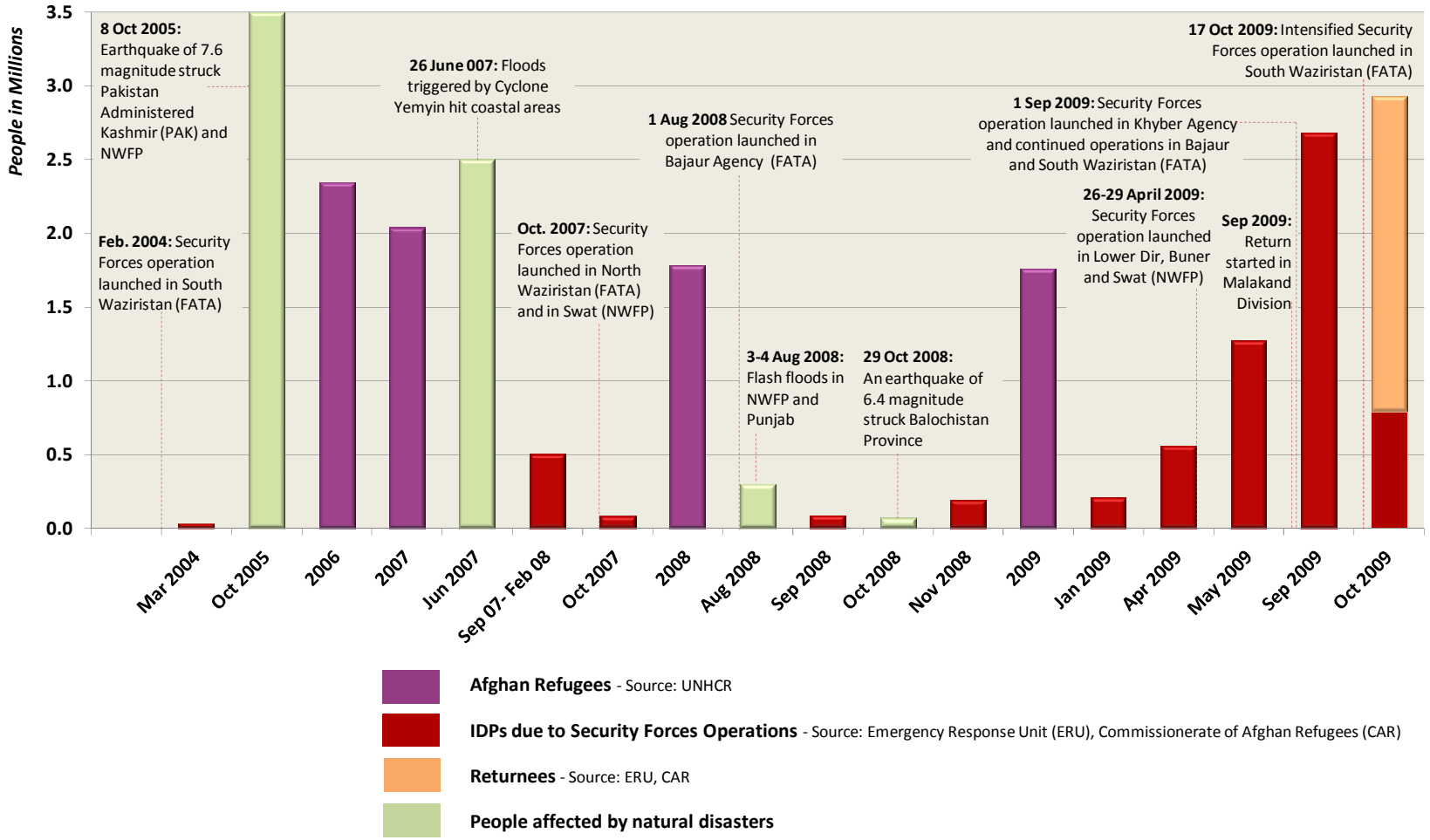
BPS	CATEGORY	SANCTIONED	FILLED
19	Principal, PGCN Peshawar	1	0
18	Chief Nursing Superintendent	7	5
18	Sister Tutor	11	0
18	Vice Principal	6	0
18	Principal	1	0
18	Deputy Director Nursing	1	0
17	Assistant Director Nursing	2	2
17	Nursing Superintendent	16	5
17	Sister Teaching Tutor	43	24
16	Head Nurse	136	116
16	Charge Nurse	3136	2682
16	Male Nurse	200	132
	Total	**3560**	**2966**

Source: DG Health Office. Received on the 12 May, 2010

Annex 4 Some Important District Level Indicators

	Percentage of households consuming adequately iodised salt (15+ ppm)		Percentage of children aged 6-59 months who received vitamin A supplement within last 6 months	Percentage of children aged 12-23 months who received BCG vaccination based on recall and checking of scar	Percentage of mothers with a birth in the last 24 months who received at least 2 doses during the last pregnancy	Percentage of children aged 0–59 months with diarrhoea who received ORT or increased fluids and continued feeding	Percentage of children aged 0–59 months with suspected pneumonia taken to an appropriate health provider	Percentage of household members using improved drinking water sources		Percentage of population using sanitary means of excreta disposal	
	MICS 2001	MICS 2008	MICS2008	MICS2008	MICS2008	MICS 2008	MICS 2008	MICS 2001	MICS 2008	MICS 2001	MICS 2008
Total	11.1	13.0	62.6	61.9	43.4	35.9	56.6	63	74.6	39	56.6
Abbottabad	31.3	18.5	67.8	79.2	66.3	35.9	78.5	67	81.7	55	76.3
Bannu	0.9	.7	57.3	33.7	20.9	42.6	55.2	85	92.2	31	37.4
Charsada	1.2	10.1	84.0	81.6	60.4	39.2	61.2	58	75.7	26	44.4
Chitral	22.2	22.8	85.2	89.7	57.9	22.5	53.4	62	75.6	65	85.5
D. I. Khan	30.1	14.1	60.3	22.8	44.2	37.3	68.4	81	76.8	40	42.3
Haripur	20.4	17.4	86.8	71.0	60.5	38.7	80.5	63	75.0	57	69.8
Karak	0.5	1.5	79.7	36.7	27.0	39.4	62.7	68	60.1	27	40.6
Kohat	9.4	9.5	80.5	57.3	45.0	37.6	55.1	68	69.1	45	67.9
Mardan	1.2	20.0	66.8	77.3	53.2	30.1	55.7	72	90.5	38	60.9
Nowshehra	3.8	8.2	77.9	69.3	51.9	35.8	74.4	71	76.0	45	70.6
Peshawar	8.3	15.6	52.2	81.0	43.9	32.7	71.6	77	88.7	56	72.3
Swabi	1.9	16.8	72.3	73.1	38.3	32.6	52.6	70	72.3	39	48.7
Upper Dir	1.8	8.5	36.6	70.1	42.7	33.2	38.7	22	46.7	11	36.9
Battagram	4.1	28.4	62.1	50.4	27.3	40.4	48.4	53	67.5	26	45.7
Buner	4.4	5.3	61.8	76.8	45.5	47.6	45.2	54	65.3	27	36.1
Kohistan	7.3	2.2	30.5	15.3	7.7	48.1	35.5	11	33.2	3	26.7
Lakki Marwat	2.1	.8	55.2	10.9	17.4	50.7	64.2	74	83.1	31	42.9
Lower Dir	9.3	11.2	45.8	74.4	44.4	30.7	46.7	45	67.2	24	61.6
Mansehra	7.2	14.2	76.9	63.6	56.8	33.8	66.9	58	71.4	37	60.1
Shangla	27.7	9.6	53.3	28.8	18.1	28.1	37.6	44	64.9	39	60.5

Annex 5 Populations affected by Natural Disasters and Security Forces Operations, Pakistan 2004-2009



Annex 6 Population per Hospital 2009/10

Districts	2009 (Projected)	Hospitals	Popln per hosp	Beds	Popln per hosp. bed	No. of RHC beds	Total beds	Popln per hosp. and RHC bed
Peshawar	2,831,020	45	62,912	5,131	552	29	5,160	549
Abbottabad	1,045,263	10	104,526	1,380	757	68	1,448	722
Bannu	879,161	6	146,527	967	909	36	1,003	877
Upper Dir	745,838	5	149,168	610	1,223	-	610	1,223
Karak	584,288	6	97,381	388	1,506	82	470	1,243
Kohat	762,411	5	152,482	491	1,553	88	579	1,317
Tank	319,248	4	79,812	165	1,935	72	237	1,347
Haripur	850,411	7	121,487	561	1,516	48	609	1,396
Malakand	619,108	7	88,444	394	1,571	20	414	1,495
Lakki Marwat	658,531	4	164,633	356	1,850	76	432	1,524
D.I.Khan	1,156,915	9	128,546	654	1,769	76	730	1,585
Shangla	589,939	5	117,988	370	1,594	-	370	1,594
Chitral	403,691	4	100,923	184	2,194	59	243	1,661
Mansehra	1,444,170	12	120,347	651	2,218	162	813	1,776
Battagram	290,758	2	145,379	103	2,823	43	146	1,991
Swat	1,723,023	10	172,302	765	2,252	58	823	2,094
Lower Dir	987,768	3	329,256	356	2,775	92	448	2,205
Buner	725,188	4	181,297	295	2,458	30	325	2,231
Hangu	426,203	5	85,241	156	2,732	10	166	2,567
Charsadda	1,338,905	3	446,302	428	3,128	52	480	2,789
Mardan	1,935,249	6	322,541	520	3,722	146	666	2,906
Nowshera	1,147,210	7	163,887	334	3,435	60	394	2,912
Swabi	1,354,686	4	338,671	150	9,031	72	222	6,102
Kohistan	476,626	-	-	-	-	52	52	9,166
Khyber Pakhtunkhwa	23,295,611	173	134,657	15,409	1,512	1,431	16,840	1,383

Note: Kohistan does not have a hospital.

Annex 7 District Level Population below the Poverty Line in Khyber Pakhtunkhwa

This table is uses projected population figures per district based on the 1998 census.

Headcount ratio %								
S. No		2009 (Projected)	Urban areas	Rural areas	Overall	% of total population	% of poor population	No. of population below the poverty line
1	Abbottabad	1,045,263	12	24	22	4.9	3.5	229,958
2	Bannu	879,161	20	28	27	1.6	1.4	237,374
3	Battagram	290,758	0	36	36	1.9	2.2	104,673
4	Buner	725,188	0	40	40	2.9	3.9	290,075
5	Charsadda	1,338,905	35	34	34	2.3	2.5	455,228
6	Chitral	403,691	17	30	29	6.6	6.2	117,070
7	D.I.Khan	1,156,915	20	32	30	5.2	5.1	347,075
8	Hangu	426,203	23	27	27	3.9	3.5	115,075
9	Haripur	850,411	10	24	22	4.1	3	187,090
10	Karak	584,288	28	31	31	8	8.1	181,129
11	Kohat	762,411	22	32	30	3.2	3.2	228,723
12	Kohistan	476,626	0	38	38	3	3.7	181,118
12	Lakki Marwat	658,531	19	32	31	2.2	2.2	204,144
13	Lower Dir	987,768	27	27	27	3.1	2.7	266,697
14	Malakand	619,108	33	34	34	5.8	6.4	210,497
15	Mansehra	1,444,170	18	34	33	8.2	8.9	476,576

Headcount ratio %								
S. No		2009 (Projected)	Urban areas	Rural areas	Overall	% of total population	% of poor population	No. of population below the poverty line
16	Mardan	1,935,249	29	34	33	6.5	7	638,632
17	Nowshera	1,147,210	25	29	28	1.1	1	321,219
18	Peshawar	2,831,020	19	33	26	11.1	9.4	736,065
19	Shangla	589,939	0	41	41	2.1	2.9	241,875
20	Swabi	1,354,686	28	29	29	1.6	1.5	392,859
21	Swat	1,723,023	21	33	31	2.7	2.8	534,137
22	Tank	319,248	29	27	28	4.3	4	89,390
23	Upper Dir	745,838	32	41	41	3.7	5	305,793
	Khyber Pakhtunkhwa	**23,295,611**				**100**		**7,092,473**

Note: The headcount ratio per district is taken from the work of Iftikhar Ahmed Cheema, in 'Tracing the Spatial Dimensions of Poverty' Oxford Policy Management Working Paper 2010-02. The data is analysed from the HIES 2004-05 and the CWIK survey 2004-05

Annex 8 List of Key Informants with whom In Depth Interviews were Conducted

S.No	Name	Designation & Institution
1	Dr Muhammad Zafar Khan	Chief Executive, Khyber Teaching Hospital Peshawar
2	Dr Hameed Afridi	Chief Executive, LRH Peshawar
3	Dr Muhammad Salar Khan	Provincial Coordinator, MNCH Program Khyber Pakhtunkhwa
4	Dr Ehsan ullah Turrabi	Provincial Coordinator, LHW Program Khyber Pakhtunkhwa
5	Mr Rahim Zada	Chief Planning Officer, Heath Secretariat Khyber Pakhtunkhwa
6	Dr Niaz Muhammad	M/S King Abdullah Teaching Hospital Mansehra
7	Dr Zakia Anjum	WMO, King Abdullah Teaching Hospital Mansehra
8	Dr Hammad Habib	Health Services Academy Islamabad
9	Dr Latif	Project Director, Provincial TB control Program Khyber Pakhtunkhwa
10	Dr Tahir Nadeem	Project Director, M & E Project Khyber Pakhtunkhwa
11	Dr Ahmad ali	Project Director, Provincial DHIS Cell Khyber Pakhtunkhwa
12	Dr Muhammad Azam Khan	Provincial coordinator, Hepatitis Control program Khyber Pakhtunkhwa
13	Dr Muhammad Zarar Niazi	TMO, LRH Khyber Pakhtunkhwa

Annex 9: Health Sector Strategy Development Khyber Pakhtunkhwa, Stakeholder Consultative Workshops

S .No	Name	Designation
1	Dr Ghulam Hazrat	MO –Dir Upper
2	Ms Nasim Akhtar	LHV –Dir Upper
3	Dr Zafar Ahmad	GM-AKHSP
4	Dr Maqsood Ahmad	EDO (H) Buner
5	Dr Shafeul Malik	Distt Coordinator NP/EPI
6	Mian Irshad	Admin Officer, EDO Shangla
7	Dr Saeeda Saeed	Principal Public Health School Nishtarabad
8	Mr Hameed ur Rehaman	DSM, PPHI , Malakand
9	Dr Aman ullah	SMO Incharge THQ Hospital Matta (Swat)
10	Ms Abida	LHS NP&PHC Charssada
11	Dr Nadeem Ahmad	Project Director-IQHCS
12	Dr Shahzad Faisal	DMS KTH
13	Dr Akhtar Said	Coordinator (DEPRU) Swat.
14	Dr Nasreen Asghar	WMO –CD Bhana Mari Kohat road Peshawar.
15	Dr Wakeel	MS DHQ Temergara
16	Ahmad Shah	JCS-DHQ Temergara
17	Dr Shaukat Ali	Distt TB Officer Peshawar
18	Dr Rafiullah	Distt Coordinator Swat
19	Dr Noorulmabood	Deputy DHO Peshawar
20	Dr Jamshad Ahmad	M.S Emergency Statalite Hospital Nahaqi
21	Mr Imran Ulllah Khan	Drup Inspector Charssada
22	Dr Khurshid Ahmad	Bice Pricipal SGTH Swat
23	Dr Saeed Ahmad	RMO –RHC Shagram (Chitral)
24	Dr Lubna Tahir	WMO-DHQ Taimargara
25	Dr Allah Yar	DTO –Charssada
26	Dr Saeed Gul	AD- (P-I) DGHS
27	Dr Hidayatullah	EDO Health Dir Upper
28	Dr Obaid ur Rahman	Coordinator –HSRU
29	Dr Azmat ullah Khan	Coordinator –HSRU
30	Dr Tahir Nadeem	Director M&E Cell
31	Mr. Jamal Afridi	JSI/Paiman
32	Muhammad Ishfaq	MIS Officer/ IQHCS
33	Dr SherQayyum	EDO H Chitral
34	Dr Israrulllah	Vice Principle –DHDC Chitral
35	Dr Shabina Raza	Chief HSRU

S .No	Name	Designation
36	Dr Shaheen Afridi	Deputy Chief HSRU
37	Ms Akhtar Bano	Lecturer/PGCN/KMU, Peshawar
38	Dr Ruhullah Jan	Director Health –DGHS
39	Dr Qazi Afsar	AD-EPI
40	Dr Shahid Younis	Coordinator-HSRU
41	Dr Ambreen Qazi	Health Officer –UNICEF
42	Dr Talat jabeen	WMO-DHQ Taimargara
43	Dr M Saleem Khan	Dy Program Manger RBM
44	Dr Adnan Taj	DMS- LRH
45	Dr Tariq Saleem Marwat	District Coordinator NP for FP & PHC Laki Marwath
46	Malik Rab Nawaz	Social Worker Ustarzai Payan kohat
47	Abdul Hameed	Coordinator HMIS EDO(H) Kohat
48	Dr Muhammad Sher Khan	D EDO (H) Kohat
49	Akhtar Jehan	Assistant Director Nursing
50	Dr Khalid Iqbal	Programme manager Roll back Malaria programme
51	Sabir Ali	Chief Drug Inspector Health Dept
52	Dr Shakoor Rahman	M/O Health Dept
53	Dr Nazish	WMO DHQ Hango
54	Dr Samia Saeed	WMO women & children hospital Kohat
55	Dr Abid Jamil	Director Medical Education PGMI, Peshawar
56	Dr Umar Naseer	MO RHC Distt Karak
57	Dr Siraj Muhammad	Secretary Medical facility Peshawar
58	Dr Islamud din	MO Lokki Health
59	Saadullah khan	District Sanitary/Food inspector EDO (H) Office Mardan
60	Dr Qiaser Ali	PHC EDO(H) Office Mardan
61	Arbas Khan	District Drug Inspector EDO(H) Office Mardan
62	Mahboob Ur Rehman	District Planning Officer Hangu
63	Momin Khan Marwat	EDO (Finance & Planning) Laki Marwat
64	Waqar Khan	Monitoring Officer Khyber Pakhtunkhwa
65	Waqar Ahmad	Monitoring Officer RMU Deptt Khyber Pakhtunkhwa
66	Dr M Aman Khan	PICO HMC Peshawar
67	Dr Mokaish	M/S MMC Mardan
68	Dr Hafiz ullah	DMS Bannu
69	Kanwal Iqbal	SFC CESSD Peshawar
70	Dr Amin ul haq	DPC, LHW Program
71	Dr Syed Javed Husain	Shifa International Hospital Islamabad (former MNA, Kurram Agency)
72	Dr Syed Arif Hussain	Health Systems Specialist

S .No	Name	Designation
73	Dr Imtiaz Ali Shah	Coordinator HSRU
74	Ms. Shukria Syed	CESSD Peshawar
75	Dr Mohtasim Billa	
76	Aqeel Badshah Khattak	Deputy Secretary Health
77	Dr M. Javed khan	Senior Advisor GTZ Peshawar
78	Dr Sardar Muhammad	D-DHO Abbottabad
79	Dr Ahmed Faisal	Health District Coordinator EPI Abbottabad
80	Dr Rafiullah Bangash	DRCS/GRC Health Program manager Peshawar
81	Sher Muhammad	Anesthesia teacher DHQ Swabi
82	Muhammad Irshad	District Operation Assistant Mansehra
83	Dr Ali Ahmed	Provisional Programme manager DHIS. DOH
84	Syed Muhammad Ilyias	CEO Paraplegic Centre Hayatabad Peshawar
85	Dr Siddique ur Rahman	Project Manager(Save the Children) Batagram
86	Abdur Rashid	EDO Social Welfare Department Mansehra
87	Shahzad Naeem	Chief Executive Ayub Medical Institute Abbottabad
88	Dr Shahid Nisar Khalid	District Specialist Surgery Swabi
89	Ms Shakila Begum	Controller NEB, Peshawar
90	Dr Niaz Muhammad	M/S KAITH Mansehra
91	Dr Saeed Ijaz Ali shah	District Coordinator NP for FP & PHC Mansehra
92	Dr Mushtaq Ahmed Khan	TA, SHSR FATA/GTZ
93	Dr Khalid Mashood	Programme Officer GTZ Peshawar
94	Javed Ali	Press Reporter Peshawar
95	Dr Ayub Khan	EDO, Health Batagram
96	Dr Muhammad Azam Khan	Hepatitis Programme Peshawar
97	Pervez Akhtar	Health / Economist Peshawar
98	Khuram	National Programme Mansehra
99	Dr Raza Muhammad Khan	MTA Health System PRIDE
100	Akmal Minallah	PFM Advisor Provincial Reform Programme Project
101	Ivan G. Somlai	CESSD/CIDA
102	Dr Zia Ul hasnain	DOH Peshawar
103	Mobashar malik	UNFPA
104	Alexandra Pluschke	GTZ
105	Rahim Zada	CPO health Khyber PakhtunkhwaK
106	Saadiya Razzaq	HSSPU
107	Dr Muhammad Sohail K. Hashmi	PMDC
108	Dr Usman Raza	Peshawar Medical College
109	Dr Alamgir Khan Shinwari	Director Administration DGHS Health Department
110	Prof Shad Muhammad	Khyber Medical University

S .No	Name	Designation
111	Dr Inam Ullah	UNICEF
112	Dr Muhammad Rahman	WHO
113	Dr Raza Zaidee	DFID
114	Dr Akhtar Said	Health Department
115	Dr Imran Khan	Deputy Director (IQHCS)
116	Dr Amber Ali	Chief Economist P&D Department Khyber Pakhtunkhwa
117	Aziz Khan Khattak	Additional Secretary Health Department Khyber Pakhtunkhwa
118	Dr Muhammad Saleem Wazir	Ayub Medical College Abbottabad
119	Dr Shahid Pervaiz	DHO,HQ Punjab HD Rawalpindi
120	Dr Inam Ul Haq	World Bank
121	Naseem Firdous	Program Officer TRF
122	Imdad Ullah Khan	TRF