Minimum Service Delivery Standards for Primary and Secondary Health Care in Punjab

PDSSP
Punjab Devolved Social Services Programme

Contech International

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ACRONYMS

ACR	Annual Confidential Report
ADP	Annual Development Programme
AIDS	Acquired Immune Deficiency Syndrome
APMO	Additional Principal Medical Officer
API	Annual Parasite Incidence
ARI	Acute Respiratory Infections
BCC	Behaviour Change Campaign
BHU	Basic Health Unit
BOD	Burden of Disease
BPR	Business Process Reengineering
BTO	Blood Transfusion Officer
CBA	Child Bearing Age
CBOs	Community Based Organizations
CBR	Crude Birth Rate
CCBs	Citizen Community Boards
CCU	Coronary Care Unit
CDC	Communicable Disease Control
CDR	Crude Death Rate
CES	Coverage Evaluation Survey
CHC	Community Health Centre
CME	Continued Medical Education
CT	Computerized Tomography
DALYs	Disability Adjusted Life Years
DCO	District Coordination Officer
DDOH	Deputy District Officer Health
DGHS	Director General Health Services
DHQH	District Head Quarters Hospital
DHDC	District Health Development Centre
DHF	Dengue Hemorrhagic Fever
DHIS	District Health Information System

DMJ	Diploma in Medical Jurisprudence
DOH	District Officer Health
DOH	Department of Health (Punjab)
DOTS	Directly Observed Treatment Short-Course
DQA	Data Quality Assurance
ECCD	Early Childhood Care & Development
EDL	Essential Drugs List
EDO-H	Executive District Officer Health
EMO	Emergency Medical Officer
ENT	Ear, Nose and Throat
EOC	Essential Obstetric Care
EPI	Expanded Programme of Immunization
EmONC	Emergency Obstetric and New born Care
FCPS	Fellows of College of Physicians and Surgeons
FLCFs	First Level Care Facilities
FMT	Female Medical Technician
FP	Family Planning
FRUs	First Referral Units
FSW	Female Sex Worker
FWC	Female Welfare Centre
GDP	Gross Domestic Product
GNP	Gross National Product
GoPb	Government of Punjab
GoP	Government of Pakistan
HASP	HIV/AIDS Surveillance Project
HDI	Human Development Index
HE	Health Education
HEB	Health Education Bureau
HFA	Health For All
HFA	Health Facility Assessment
HIS	Health Information System

HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HPI	Human Poverty Index
HRD	Human Resource Development
HRP	Human Resource Plan
HRPD	Human Resource Planning and Development
HSRP	Health Sector Reforms Programme
ICDS	Integrated Child Development Service
ICU	Intensive Care Unit
IDDs	Iodine Deficiency Disorders
IDU	Injecting Drug User
IEC	Information Education Communication
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
IPC	Inter Personal Communication
IPH	Institute of Public Health
IPT	Intermittent Presumptive Therapy
ITN	Insecticidal Treated bed Nets
JE	Japanese Encephalitis
JICA	Japan International Cooperation Agency
LHV	Lady Health Visitor
LHW	Lady Health Worker
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring & Evaluation
MCH	Maternal and Child Health
MDGs	Millennium Development Goals
MHT	Male Health Technician
MICS	Multiple Indicators Cluster Survey
MIS	Management Information System
MMR	Maternal Mortality Ratio
MNP	Minimum Needs Programme

MO	Medical Officer
MOH	Ministry of Health (Pakistan)
MP	Malarial Parasite
MSDS	Minimum Service Delivery Standards
MS	Medical Superintendent
NGOs	Non Government Organizations
NHS	National Health Standards
NIC	National Information Centre
NIDs	National Immunization Days
NIHFW	National Institute of Health and Family Welfare
OPD	Out Patient Department
ORT	Oral Re-hydration Therapy
OTA	Operation Theatre Attendant
PAIMAN	Pakistan Initiative for Mothers & Newborns
PEM	Protein-Energy Malnutrition
PHC	Primary Health Care
PHDC	Provincial Health Development Centre
PID	Pelvic Inflammatory Diseases
PLGO	Punjab Local Government Ordinance
PMDC	Pakistan Medical and Dental Council
PMO	Principal Medical Officer
PMU	Programme Management Unit
PNC	Pakistan Nursing Council
PVMS	Product Vocabulary on Medicine and Surgery
PAIMAN	Pakistan Initiative for Mothers & Newborns
RHC	Rural Health Centre
RTIs	Reproductive Tract Infections
SHC	Secondary Health Care
SMO	Senior Medical Officer
SMPs	Standardized Medical Protocols
SOPs	Standard Operating Procedures

STIs	Sexually Transmitted Infections
TB	Tuberculosis
TBAs	Traditional Birth Attendants
TFR	Total Fertility Rate
THQH	Tehsil Head Quarters Hospital
TT	Tetanus Toxoid
UK	United Kingdom
UNICEF	United Nations International Children Education Fund
UNFPA-CPA	United Nations Population Fund- Country Population Assessment
USD	United States Dollar
WHO	World Health Organization
WMO	Woman Medical Officer

GLOSSARY OF TERMS

Burden of Disease (BOD): BOD is "*an aggregate measure of the years of healthy life lost by a population due to all episodes of disease and injury occurring in a given year*". It is a direct measure of the prevailing health problems. BOD helps in determining problem based health needs of the population which in turn determine nature of services to be provided at all levels of care.

Minimum Service Delivery Standards (MSDS): MSDS are defined as "*minimum level of services, which the patients and service users have a right to expect*". MSDS include minimum package of services, standards of care (level specific) and mandatory requirements/system specifications that must be complied with and are vital to ensure the delivery of these services.

Standardized Medical Protocols (SMPs): SMPs are defined as "*Standard steps to be taken by a health facility during medical or surgical management of a patient".*

Standard Operating Procedure (SOPs): SOPs are defined as "*Detailed description of steps required in performing a task".*

Supervision: *Supervision means "process of helping an individual or group in performing their assigned activities".*

Primary Health Care (PHC): PHC is "Essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self determination".

Essential Components of Primary Health Care

There are eight essential components of Primary Health Care (PHC) approach. These are given below:

1. Education concerning prevailing health problems and the methods of preventing and controlling them
2. Promotion of safe food supply and proper nutrition
3. An adequate supply of safe water and basic sanitation
4. Maternal and child health care, including Family Planning.
5. Immunization against major infectious diseases
6. Prevention and control of locally endemic diseases.
7. Appropriate treatment of common diseases and injuries
8. Provision of essential drugs

Health Related Millennium Development Goals (MDGs):

The World Health Assembly in Alma-Ata on 12-09-1978 expressed the need of action to protect and promote the health for all the people of the world. The 'Health for All' Declaration recommends protecting and promoting the health of all people of the world by the year 2000 through Primary Health Care, as health is a fundamental human right. Essential health is to be made universally accessible to individuals and families through their full participation and at a cost that the community and country can afford. Unfortunately, most of the countries failed to achieve the targets for Health for All.

In September 2000, the largest-ever gathering of Heads of State ushered in the new Millennium by adopting the UN Millennium Declaration. The Declaration, endorsed by 189 countries, was then translated into a roadmap setting out goals to be achieved by 2015.

Health and MDGs

Three out of eight goals, eight of the 18 targets and 18 of the 48 indicators relate directly to health.

Goal 4:	**Reduce child mortality**	**Health Indicators**
Target 5	Reduce by two-thirds, by 1990 and 2015, the under-five mortality rate	Under-five mortality rate Infant mortality rate Proportion of one-year-old children immunized against measles
Goal 5:	**Improve maternal health**	
Target 6	Reduce by three-quarters, by1990 and 2015, the	Maternal mortality ratio Proportion of births attended by skilled

	maternal mortality ratio	health personnel
Goal 6:	**Combat HIV/AIDS, Malaria and other diseases**	
Target 7	Have halved by 2015 and begun to reverse the spread of HIV/AIDS	HIV prevalence among pregnant women aged 15-24 years Condom use rate of the contraceptive prevalence rate Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years
Target 8	Have halved by 2015 and begun to reverse the incidence of malaria and other major diseases	Prevalence and death rates associated with malaria Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures Prevalence and death rates associated with tuberculosis Proportion of tuberculosis cases detected and cured under DOTS (Directly Observed Treatment Short-course)

SECTION I

CONCEPTUAL FRAMEWORK

1.1. Background and Introduction

Bhore Committee constituted in 1945 was entrusted to conduct a health survey and subsequently lay down recommendations[1] to improve health status of the people of Subcontinent. The recommendations made by this Committee are an important milestone in the history of public health of Indo-Pak. A shift from medical care to comprehensive health care was the cornerstone of the recommendations. The recommendations envisaged almost all the principles of today's Primary Health Care (PHC) and provided a framework to plan health services on the basis of population[2].

Immediately after independence, the pace of health care planning and development remained slow. In the 1970s, health care planning and development gained momentum when a number of new medical colleges were established and the health budget was doubled. National health policy was promulgated, cornerstone of which was generic drug scheme with rural/urban and preventive/curative bias.

However, in 1978, Pakistan signed Alma-Ata Declaration, which adapted primary health care (PHC) as an approach to Health for All (HFA). During the 1980s, Basic Health Services Project and Primary Health Care Project laid down framework for Minimum Service Delivery Standards (MSDS), again on the basis of population. The health infrastructure was expanded so that each Union Council had a Basic Health Unit (BHU) and at each Markaz/ Thana level Rural Health Centre (RHC) was established. Similarly a Tehsil Headquarters Hospital (THQH) and District Headquarters Hospital (DHQH) were established at each Tehsil and District headquarters respectively.

1.2. Minimum Service Delivery Standards - Basis

While designing and proposing Minimum Services Delivery Standards, Burden of Disease (BOD)[3] in conjunction with population could be a realistic approach, as it gives reasonably good estimate of the basic health needs of a population.

BOD helps in determining health needs of the population which in turn determine the nature of services to be provided at all levels of

[1] Government of India, 1946, Report of the Health Survey and Development Committee
[2] Primary Health centre for a population of 40,000 and secondary health centre for 600,000 people
[3] The BOD is an aggregate measure of the years of healthy life lost by a population due to all episodes of disease and injury occurring in a given year, thus a direct measure of the prevailing health problems.

care. Services must be prioritized to maximize the benefit of health scarce resources. While prioritizing among the type of services, cost and non-cost factors and more importantly equity must be given due consideration. At the same time services must be pro poor and take seriously into account the issue of equity.

Once services are in place, the next logical and important question is the quality of care that cannot be achieved without defining standards.[4] The standards have two principal objectives[5]. First, they provide a common set of requirements applicable to whole health care system and secondly they provide a framework for continuous improvement in overall quality of care. Ultimate impact of the MSDS would be to provide effective and healthy work force for the economic development of the country.

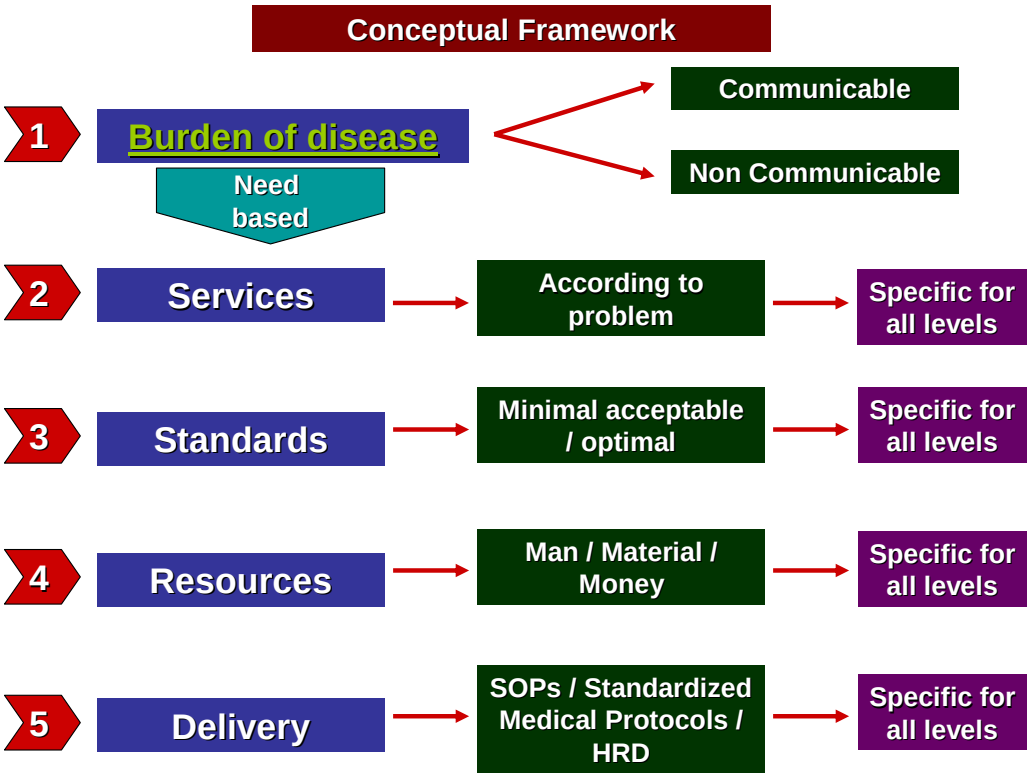
The MSDS not only address minimum services package and standards of care to be made available at all levels, but also envisages mandatory requirements/ system specifications to ensure the delivery of quality health care services[6]. These will also create conducive working environment for health care providers. MSDS would strive for a need-based system of care putting public first and focusing on quality health services. (Conceptual Framework of MSDS is given in figure 1)

1.3. Burden of Disease

The BOD measures the losses of healthy life in the form of disability and premature death due to all episodes of disease and injuries occurring in a given year. The BOD has historically been defined using two measures: morbidity and mortality. Morbidity describes the number of cases resulting from a particular disease or health problem. Mortality describes the deaths resulting from a particular disease entity or health problem. Both of these measurement schemes have weaknesses. To address these problems, Disability Adjusted Life Years (DALYs) have been promoted as a new burden of ill-health classification scheme. The main attraction of DALYs is that it combines morbidity and mortality measures into one metric.

[4] Standard is a "benchmark" of achievement that is based on a desired level of excellence. As such standards are models to be imitated and may serve, in turn, as the basis for comparisons. Standards are a means of describing the level of quality that health care system are expected to meet or to aspire to. The performance of health care system can be assessed against this level of quality.
[5] National Standards: NHS.UK
[6] World Health Organization (WHO), Health services delivery standards.

Figure 1 Conceptual Framework



An analysis of the BOD in Pakistan conducted in 1996 indicated that almost 40 % of the total BOD was due to poverty related communicable diseases (like tuberculosis, malaria, vaccine preventable diseases of childhood) and 12 % to reproductive health problems. More than one third (37.7%) of BOD was contributed by non-communicable diseases and nutritional deficiencies accounted for a further 6 % (Table 1.1).

Table 1.1 Pakistan – Distribution by cause of the Burden of Disease.

In Percentages of the Total Number of DALYs Lost in a Given Year (1996)[7]

Serial No.	Group	Diseases	Percentage	
			Disease	Group
1	Communicable Diseases	Infectious and Parasitic	20.4%	38.4%
		Respiratory Infections	8.1%	
		Childhood Cluster	6.7%	
		Sexually Transmitted	2.2%	
		Tropical Cluster	1.0%	
2	Non-Communicable Diseases	Cardiovascular	10.0%	37.7%
		Nutritional / Endocrine	5.48%	
		Malignant Neoplasms	4.8%	
		Congenital Abnormalities	3.5%	
		Digestive System	3.4%	
		Chronic Respiratory	3.4%	
		Neuro-psychiatric	2.6%	
		Other Non-communicable	4.9%	
3	Maternal and Perinatal Conditions	Maternal	2.8%	12.5%
		Perinatal	9.7%	
4	Injuries		11.4%	11.4%
			Total	**100%**

Prevalence and pattern of communicable diseases has not changed[8] much over the last decade. Poverty related communicable diseases (like diarrheal diseases, acute respiratory infection (ARI), fever (clinical malaria and tuberculosis) are still prevalent and account for major share of BOD especially among rural population.

The total BOD of Pakistan in 1996 was about 350 DALYs per 1,000 population per year that was lower than the corresponding figure for sub-Saharan Africa of 575 DALYs per 1,000 population in 1990 and about the same as India (344 / 1000), but much higher than China (178 / 1000). It is, unfortunately, about threes times the figure for established market economies (117 / 1000) [9].

[7] Pakistan: Towards Health sector Strategy, World Bank, 1998
[8] NATIONAL FEEDBACK REPORT 2006.National HMIS Program Islamabad.
[9] Pakistan: Towards Health sector Strategy, World Bank, 1998.

1.4. Epidemiological Transition and the Unenviable Challenge of Double BOD

Countries in Asia and the pacific including Pakistan are undergoing a rapid demographic and epidemiological shift[10]. On the demographic side, the fertility rate is slowing and the age structure is changing from a broad-based pyramid to a rectangular-shaped column, signifying a rapidly growing adult population. These changes are closely correlated with an epidemiological transition in disease patterns. With the change in population age structure, diseases of younger population are giving way to diseases of the older population.

This demographic and epidemiological shift has profound implications. According to the WHO, most countries in Asia and the pacific in the 1990s faced a fairly even split between communicable diseases (49 percent) and non-communicable diseases (40 percent). But by 2020, communicable diseases will represent about 20 %, while non-communicable will soar to 63%[11].

Pakistan as a whole and the Punjab[12] province in particular appear to be in an early stage of epidemiological transition, where preventable or readily treatable diseases, primarily affecting young children and women, account for the dominant share of morbidity and premature mortality.

In contrast to Western countries, where a manageable shift from communicable to non communicable diseases took place sequentially over time, in Pakistan, the Government is challenged with working simultaneously to conquer the residual burden of communicable diseases and the growing burden of non communicable diseases with relatively constrained financial resources.

As mentioned earlier, the demographic and epidemiological shift in Pakistan and the Punjab has profound implications on pattern and prevalence of various health problems. It would be quite imperative to know exactly the BOD and its attributes so that need-based

[10] Asian Development Bank. 2000. Health Sector Reform in Asia and Pacific: Options for Developing Countries. Manila.
[11] Asian Development Bank. 2000. Health Sector Reform in Asia and Pacific: Options for Developing Countries. Manila.
[12] Situation Analysis Punjab Devolved Social Services Sector Development Program. SoSec Pakistan

planning and prioritizing of health care interventions could be practised.

In the light of the facts explained above, it is the need of the hour to develop MSDS. In this regard Punjab Devolved Social Services Programme (PDSSP) has taken an initiative and assigned this task to Contech International to:

- Develop MSDS for primary and secondary health care levels
- Develop an Action Plan for the implementation of MSDS
- Develop complementary documents of Standard Operating Procedures (SOPs) and Standardized Medical Procedures (SMPs).

SECTION II

METHODOLOGY

In order to appropriately reflect the diversity of expert opinion and disciplinary perspectives, a systematic, participatory process, based on sound evidence was used in the development of MSDS. A combination of methods was used including the following:

2.1. Review and Situational Analysis

Literature Review

International and national literature was reviewed to explore the best practices especially of countries with similar context to that of Pakistan. This has been helpful to know the existing situation regarding MSDS in health sector, impediments confronting it, and also in developing proposal for MSDS.

Departmental Visits

All concerned Departments including Health, Planning and Development and Finance were visited for consultation with key individuals from each Department. Their valuable inputs have helped to develop the MSDS. In addition, official documents of the Health Department were also searched to assess similar work done in the past. Close coordination was maintained with these Departments throughout the process of this assignment.

Facility Visits

Four best practicing health facilities (DHQH, THQH, RHC, and BHU) based on HMIS report, were visited to observe the availability of service delivery standards if any. A team of senior public health experts from *CONTECH* visited the health facilities and assessed the current status of the service delivery standards using a checklist.

Consultative meetings

Consultative meetings were held with the PDSSP, Health Sector Reforms Programme (HSRP) and the Director General Health Services (DGHS) to share the conceptual basis of the assignment, contents and format of the proposal.

2.2. Consultative Workshops

Based on the gaps identified in the Situation Analysis, the MSDS-Proposal was prepared and presented to experts in a workshop setting. For these three consultative workshops, two for District level stakeholders at Multan and Rawalpindi and one for Provincial level stakeholders at Lahore were held with the following objectives:

a) To look at the impediments in the implementation of existing standards;
b) To identify gaps in the existing standards that needs to be filled; and
c) To get feedback from the participants on proposed standards.

Participants were introduced to existing situation regarding MSDS and impediments to their implementation. This was followed by a therefore the new standards to fill in identified gaps and to improve the situation. Participants were divided into groups to suggest solutions for obstacles, feedback on the proposed standards and proposing practicable implementation strategy for MSDS. Group work was followed by presentations made by the group representatives. The presenter highlighted the group's recommendations and suggestions.

At the end of the consultative workshops, a comprehensive report detailing the objectives mentioned above was synthesized and made a part of this document.

2.3. Report

Final report focusing on the following areas was prepared:

- Existing Situation with impediments
- Service delivery standards being followed internationally
- Comprehensive report on consultative workshops
- MSDS-Proposal
- Implementation Plan

SECTION III

HEALTH PROFILE OF PUNJAB

3.1. Population of the Punjab

The Province of Punjab has an area of 205,345 sq. kilometers, giving an average population density of 359 persons per square kilometer. The estimated population is above 80.0 million people (another estimate pitches it at 86 million)[13], 70% of whom reside in rural and 30% in urban area. The male and female ratio is 111:100. The province's population is mostly in younger age brackets; infants constitute 2.5%, under 5 years age group 14.25% and under 15 years children 43.0% of the population. Women in the child bearing age (15-49 years) are 22% of the total population whereas 4.5% women are estimated to be pregnant every year[14].

3.2. Health Indicators

Pakistan has lagged behind its neighbours and many other low-income countries in terms of health and fertility outcomes. Spending on health and population through public and private sector is 4.1% of GDP of which the public sector contribution is 0.6%.

Pakistan is the 6th most populous country in the world with a population of over 154 million people. There is an alarmingly high Maternal Mortality Ratio of 350-400. In addition, there is high infant mortality rate of 77/1000 and under-five mortality rate of 101/1000 live births[15]. The estimated population growth rate is 1.9 % per annum[16], which projects that Pakistan's population would increase to 226 million by year 2025. The Total Fertility Rate (TFR) is 4.0 which ranks among the highest in the world and the second highest in the region.

Punjab constitutes more than half the population of Pakistan. In spite of extensive network of health care facilities, health status of the people of the province as a whole is below the desired level. Infant mortality rate is 77 per 1000 live births. Under 5 mortality rate is 112 per 1000 live births. Maternal mortality ratio is estimated to be 300 per 100,000 live births, lower than the national figure 350. Total fertility rate in the province is

[13] National Institute of Population Studies (NIPS). 2006. Islamabad.
[14] District Population Profile Punjab, MSU Islamabad. 2002
[15] Pakistan Basic Facts; [cited 2006 .Sept.4] Available from URL: http:www.infopak.gov.pk/public/govt/basic_facts.htm
[16] Pakistan Economic Survey 2004-5

estimated to be 4.7. 92 percent of the population has access to improved drinking water sources; whereas 58 percent of the population in the province has access to sanitation.

Currently there are about four million malnourished children in Punjab, and about a third of all pregnant women are estimated to have iron deficiency anaemia. Over 34 percent of children under the age of five years are short for their age; over 10 percent are under weight for their age and over half anaemic[17]. Malnutrition is a major contributor to infant and maternal deaths (Table 3.1).

3.3. Factors behind Poor Health

Poor health status is in part explained by poverty, low levels of education especially for women, low status of women in large segments of society, and inadequate sanitation and potable water facilities, low spending /expenditure on health even by Asian standards (0.7% as compared to 1.3%, World Bank report). It is also strongly related to serious deficiencies in health services, both in public and private sectors.

Table 3.1 Selected Health and Facility Indicators of Punjab[18]

Health indicators	Value
Infant mortality rate /1000 live births	77
Maternal mortality ratio/100,000 live births	300
Under-five mortality/1000 live births	112
Percentage of Under nutrition (<5 years)	34
Total Fertility Rate	4.7
Life expectancy at birth	64
Number of hospitals	151
Dispensaries	194
RHCs	298
BHUs	2,456
MCHCs	188

[17] Multiple Indicators Cluster Survey (MICS) Punjab 2003-4

[18] Punjab Development Statistics, Bureau of Statistics Government of the Punjab 2004., Pakistan Basic Facts; [cited 2006 .Sept.4] Available from URL: http:www.infopak.gov.pk/public/govt/basic_facts.htm, Pakistan Economic Survey 2004-5, Pakistan Basic Facts; [cited 2006 .Sept.4] Available from URL: http:www.infopak.gov.pk/public/govt/basic_facts.htm, Multiple Indicators Cluster Survey (MICS) Punjab 2003-4, District population profile Punjab, MSU Islamabad, 2002., UNICEF [Cited 2006. Dec.4]. Available from: URL:, http://www.unicef.org/infobycountry/pakistan_pakistan_statistics.htm

Health indicators	Value
Number of beds	37,272*

*Number of beds also includes other Government departments

3.4. Health Care Delivery System

Health sector of Punjab has an extensive network of public and privately managed health infrastructure throughout the province. The government operated health care system, at all levels, is primarily financed from public sector revenues, while the private sector is largely funded out-of-pocket household expenditures.

The Government is by far the major provider of hospital services in rural areas, and it is also the main provider of preventive care throughout the province.

The public sector health delivery system is composed of four tiers: (i) outreach and community-based activities, which focus on immunization, sanitation, malaria control, maternal and child health and family planning; (ii) The primary care facilities include Basic Health Units (BHUs) and Rural Health centres (RHCs) mainly for preventive and outpatient care (iii) the Secondary health care facilities of Tehsil Headquarters Hospital (THQH) and District Headquarters Hospital (DHQH) for inpatient and out patient care; and (iv) tertiary care hospitals located in the major cities for more specialized care (Table 3.2).

The private health services sector is dominated by "clinics", the small office- based practices of general practitioners. Other private sector facilities include maternal and child health centres (maternity homes), dispensaries and diagnostic laboratories. There are also more than 450 small and medium-size hospitals with about 30 beds per hospital on average. They are equipped only for basic surgical, obstetric, and diagnostic procedures, and concentrate on low risk care. In addition, there are some large hospitals, mainly run by private owners and NGOs and are located in major cities. The quality of care in the private sector is not standardized and regulated.

Table 3.2 Four Tiers of Public Sector

Tier	Facility/services
First	Outreach and community-based services, which focus on immunization, sanitation, malaria control, maternal and child health and family planning;
Second	The primary care facilities include Basic Health Units (BHUs) and Rural Health centres (RHCs) mainly preventive, outpatient and basic inpatient care
Third	The Secondary health care facilities which include Tehsil Headquarters Hospital (THQH) and District Headquarters Hospital (DHQH) for out patient, inpatient and also specialist care
Fourth	Tertiary care hospitals located in the major cities for more specialized inpatient care.

SECTION IV

MSDS – SITUATION ANALYSIS

Situational Analysis of MSDS has been divided into two parts; Situation Analysis in public health sector of Punjab and International Practices. Situation Analysis in public health sector of Punjab has been organized within eight "domains"; which are designed to cover Primary Health Care (BHU, RHC) and Secondary Health Care (THQH, DHQH) levels and encompasses all facets of health care. The Domains are: Services-Package, Physical Standards, Drugs and Supplies, Human Resource, HMIS, Supervision, Performance Assessment and Referral system. MSDS-International practices contain a summary of international practices related to MSDS.

4.1. Services Package

Primary Health Care

The BHU is located at Union Council and serves a catchment population of up to 25,000. Services provided at BHU are promotive, preventive, curative and referral. Outreach/ community based services are part of package provided by the BHU. BHU provides all PHC services along with integral services that include basic medical and surgical care, CDD, CDC, ARI, malaria and TB control. MCH services are also part of the services package being provided at BHU[19].

BHU provides first level referral to patients referred by LHWs. BHU refers patients to higher level facilities as and when necessary.

The BHU also provides clinical, logistical and managerial support to the LHWs. It also serves as a focal point, where community and the public sector health functionaries may come together to resolve issues concerning health.

The RHCs have 10-20 inpatient beds and each serves a catchment population of up to 100,000 people. The RHC provides promotive, preventive, curative, diagnostics and referral services along with in patient services. The RHC also provides clinical, logistical and managerial support to the BHUs, LHWs, MCH Centres, and Dispensaries that fall within its geographical limits. RHC also provides medico-legal, basic surgical, dental and ambulance services.

[19] Local Government Planning Manual

Services-package and standards of care offered at PHC level are defined though remain vague. Deficient areas include: weak arrangements to deal with non-communicable diseases, mental and geriatric problems.

Secondary Health Care

THQ hospital is located at each THQ and serves a population of 0.5 to 1.0 million. At present majority of THQ hospitals have 40 to 60 beds. The THQ hospital provides promotive, preventive, curative, diagnostics, in patients, referral services and also specialist care. THQ hospitals are supposed to provide basic and comprehensive EmONC.

THQ hospital provides referral care to the patients including those referred by the Rural Health Centres, Basic Health Units, Lady Health Workers and other primary care facilities.

The District Head Quarters Hospital is located at District headquarters level and serves a population of 1 to 3 million, depending upon the category of the hospital. The DHQ hospital provides promotive, preventive, curative, advance diagnostics, inpatient services, advance specialist and referral services. All DHQ hospitals are supposed to provide basic and comprehensive EmONC.

DHQH provides referral care to the patients including those referred by the Basic Health Units, Rural Health Centres, Tehsil Head Quarter hospitals along with Lady Health Workers and other primary care facilities.

Services package and standards of care at SHC level are also not well defined. Deficient areas include: weak arrangements to deal with non-communicable diseases, mental, geriatric problems and specialized surgical care especially at THQH. There is disproportionate emphasis on maternal and child health services at SHC facilities.

Services-package being provided at PHC and SHC are also deficient in terms of Health care providers' obligations, patients' rights and obligations.

4.2. Physical Standards

Primary Health Care

The physical standards of BHU and RHC are given in Table 4.1 below. A standardized lay out plan of building of BHU and RHC is available.

Table 4.1 - Physical Standards PHC

BHU	RHC
Land standard: 10 Kanals	Land standard: 24 Kanals
Building Building comprises service area and residential blocks. Service area with covered area of 2263 sq.ft, consists of OPD room for doctor, a room for LHV, a room for health education, waiting area, dispensary, Labour room, mini laboratory, two maternity beds, vaccine storage room, stock room and a generator room. Residential block comprises residences for doctors, paramedics and support staff.	Building Building comprises service area and residential blocks. Service area with covered area of 7710 sq.ft [20], consists of OPD rooms for doctors, rooms for LHVs, a room for health education, waiting area, dispensary, Labour room, dental room laboratory, operation theatre and 12-20 bed wards, vaccine storage room, stock room and a generator room, X-ray and labour room. Residential block comprises residences for doctors, paramedics and support staff.
Prerequisites: Approach Road, Boundary wall and basic amenities of living, which include water supply, sewerage facility, electricity, telephone and gas provision.	Prerequisites: Approach Road, Boundary wall and basic amenities of living, which include water supply, sewerage facility, electricity, telephone and gas provision
Equipment: A standard list of equipment for BHU has been prepared and is available[21] to deliver the prescribed service package.	Equipment: A standard list of equipment for RHC has been prepared and is available to deliver the prescribed service package.

[20] Communication and Civil Works Department Government of the Punjab
[21] Training 2000, Department of Health, Government of the Punjab

Secondary Health Care

A standardized lay out plan of buildings of THQH and DHQH is available with the Department. The physical standards of THQH and DHQH are given in Table 4.2 below.

Table 4.2 - Physical Standards SHC

THQH	DHQH
Land requirement: Minimum land required for THQH is 100 Kanals	Land requirement: Minimum land required for a DHQH is 200 Kanals.
Building: A standard lay out for the building THQH is available. Main building comprises hospital and residential blocks. Hospital block with covered area 35,000 sq.ft[22], consists of OPD rooms for doctors, rooms for LHVs, a room for health education, waiting area, dispensary, Labour room, laboratory, operation theatre and number of beds ranges from 40-60, emergency room, Vaccine storage room, stock room and a generator room. Residential block comprises residences for doctors, paramedic and support staff.	Building: A standard lay out for the building DHQH is available. Main building comprises hospital and residential blocks. Hospital block with a covered area 1, 37,000 sq. ft[23]consists of OPD rooms for Specialists, doctors, and rooms for LHVs, a room for health education, waiting area, dispensary, laboratory, operation theatre and wards for inpatients, operation theatres, emergency, blood bank, administration block, stock room and a generator room. Residential block comprises residences for doctors, paramedic and support staff. Nursing school and nursing hostel are also part of the setup.
Approach Road, Boundary wall and basic amenities of living, which include water supply, sewerage facility, electricity, telephone and gas provision.	Approach Road, Boundary wall and basic amenities of living, which include water supply, sewerage facility, electricity, telephone and gas provision.

[22] Covered area is for a 60 bedded hospital and currently majority of the THQ hospitals have bed strength ranges from 40-60.
[23] Covered area is for 268 bedded DHQ hospital and varies with number of beds

Equipment	Equipment
Standard lists of equipments (bearing PVMS code and specifications), which were prepared for THQ and DHQ hospitals before devolution of powers by Provincial Standard Committee headed by Secretary Health, still exist.	Standard lists of equipments (bearing PVMS code and specifications), which were prepared for THQ and DHQ hospitals before devolution of powers by Provincial Standard Committee headed by Secretary Health, still exist.

Currently a yardstick is available for space per hospital bed at SHC facilities, ranging from 200-300 sq.ft[24].

Majority of PHC and SHC facilities have complied with building lay out. Prerequisite standards have been met by majority of facilities except some of the BHUs. At present majority of SHC Hospitals are not fulfilling land yardstick/standards. Only 11 out of 34 DHQHs and 7 out of 77 THQHs fulfill this yardstick. Though Standard equipment lists for all levels exist but no mechanism of their periodic up-dation/revision exists.

Physical facilities mentioned above depict the laid down current standards. However expansion in infrastructure is required to meet the existing/expected BOD and changing needs.

4.3. Drugs and Supplies

Provision of adequate supply of drugs and consumable supplies is critical to the successful provision of quality services. This requires an effective logistic system. The main components of such systems are: availability of standard lists, quantification, procurement and distribution.

Currently standard lists of drugs and supplies for all service delivery outlets are available[25]. Essential Drugs Lists (EDLs) were developed in 1988 and updated in 1998. EDLs are based and tilted towards communicable diseases. Drug quantification and procurement procedures exist through which drugs and supplies are procured and supplied.

[24] Department of Chief Architect, Government of the Punjab
[25] Formulary for RHCs and BHUs, Notification NO SO (DC) 10-2/2005Department of Health, GoPb

At present no system of regular revision of EDLs as per the changing needs, demographic transition and burden of disease exists. Presently guidelines for operation of an effective and comprehensive logistic system for drugs and supplies are also not available.

The District Governments have been proposed[26] to be responsible for preparing Essential Drugs Lists (EDL) on the basis of Districts' specific 'Burden of Disease'.

4.4. Human Resource

Human resource is the most vital and essential resource especially in the health care settings. It is the availability and appropriateness of the care providers in relation to services that matters a lot.

Human resource for PHC

Standard lists of human resource positions are available for BHU[27], RHC[28] and are given in Annexure I. Currently job descriptions for all categories up to PHC level are also available but they need to be made more elaborate (something that the PDSSP is presently doing).

The new additions to present list of human resource at RHC have been proposed by the HSRP Punjab. These additions are Charge Nurses 4, LHV 1, Midwives 4, Anesthesia Assistant, Operation Theatre Assistant and Accountant/Computer operator. Specialists from SHC and tertiary care levels are expected to visit RHC on regular basis, making the access of poor population to specialist care possible and convenient.

The staff positions have recently been filled according to the standard lists through incentavized salary packages under the auspices of HSRP[29]. Government has also started induction and refresher trainings of all the newly recruited staff (medics and paramedics) at all levels.

[26] HSRF Government the Punjab
[27] Revised yardstick/criteria for BHU Staff NO SO (ND) 15-11/2004, Department of Health GoPb
[28] Revised yardstick/criteria for RHC Staff NO SO (ND) 15-11/2004, Department of Health GoPb
[29] New Positions have been added by HSRP, and are on contractual basis and currently financed through this program.

Human resource for SHC

THQHs on the basis of catchment's population have been classified in to three categories i.e. A, B, C. Three categories of THQ hospitals along with hospital beds, specialists and nursing staff are given below. The posts of specialists vary according to the category of the hospital. At this time, as per survey of the HSRP, there are a total 77 THQHs. Out of these 13 are Category A, 32 Category B and 32 Category C hospitals.

Table 4.3 – Categories of THQ Hospitals[30]

Category	Population	Bed strength	Specialists	MOs	WMOs	Staff Nurses
A*	7.5 Lacs and above	100-150	All the 9** standard specialists	12	6	16
B	5-7.5 Lacs	60-100	All the 9 standard specialists	10	4	14
C	Up to 5 Lacs	40-60	All the 9 standard specialists	8	3	12

*Number of Surgeon, Pediatrician, Gynecologist, Anesthetist and Support staff could be increased as per workload.

** 9 standard Specialists including Surgeon, Anesthetist, Physician, Gynecologist, Pediatrician, Eye Specialist, Orthopedic Surgeon, Pathologist and Radiologist.

A standard human resource list is available[31] only for Category 'C' THQH, as given in Annex I. The standards for posting of Specialists, nursing staff are also available for categories A, B THQHs but at present no standard list for paramedical and support staff is available for these categories.

DHQ hospitals have been classified into three categories according to the catchment population and number of beds. As per the survey

[30] Adapted from HSRP, Government of the Punjab
[31] Revised yardstick/criteria for THQH Staff NO SO (ND) 15-11/2004, Department of Health GoPb

of Programme Management Unit (PMU) of HSRP, there are a total 34 DHQHs. Out of these 3 are Category A, 5 Category B and 26 Category C DHQ hospitals.

Standards lists of human resource for different categories of DHQ hospitals have been notified by competent authority and can be seen at Annex I.

Table 4.4 – Categories of District Head Quarter Hospitals

Category	Beds	Population	Specialities*
A	> 400	30 Lacs	18**
B	251-400	15-30 Lacs	18***
C	Up to 250	10-15 Lacs	18

*Specialties are Surgery, Anesthesia, Medicine, Gynecology, Radiology, Pathology, Eye, ENT, Pediatrics, Urology, Orthopedics, Physiotherapy, Cardiology, Neurosurgery, Psychiatry, Chest Diseases, Dermatology, and Pediatrics surgery.
**Number of Specialists for essential departments will be 3 each
*** Number of Specialists for essential departments can be enhanced as per workload to 2-3 each

Currently no criteria/standard exists for the allocation/sanction of human resource at any health care facility. Existing human resource policy is not responsive to the health needs of population. Though the Health Department has started induction training and refresher trainings of all the newly recruited medical and paramedical staff, the trainings are of short durations and deficient in many areas. A standard Human Resource Development (HRD) plan does not exist. The PDSSP intends to work on this separately through a study to be done by an international consultant quite soon.

4.5. Health Management Information System (HMIS)

Well-organized management information is the backbone of any organization. Health Management Information System (HMIS) was developed in the early 1990s with the objectives, helping informed decision making at all levels of management and planning timely interventions for any forthcoming episode or re-occurrence of a disease.

Both BHUs and RHCs have standard HMIS reporting instruments and plans[32] for submission of reports to the EDO office. Currently HMIS is covering only OPDs of THQ and DHQ hospitals. Both hospitals are also following the old system of sending annual Abstract Report to EDO-H, which in turn is sent to the HMIS cell in Director General Health Services (DGHS) office[33]. Instruments used for reporting are standardized.

Presently HMIS is dealing with FLCFs and restricted to communicable diseases only. HMIS only reports data from OPD and no information whatsoever is available from indoor departments. Acceptable level of error rate has not been specified in HMIS. It does not provide information on mental, geriatric problems and non-communicable diseases.

4.6. Supervision

At BHU and RHC level, Medical Officer in-charge is responsible for supervising the work of facility employees and health personnel looking after outreach/community-based services. Supervisory role of the BHU and RHC in charge has not been clearly defined in their respective job descriptions[34]. A standard supervisory checklist is available for PHC facilities.

The MS of THQ hospital is supposed to supervise the work of his subordinates and community based services in area of his jurisdiction. Currently supervisory role of MS is not well defined and no standard checklist is available. Also his/her supervisory role is limited to administrative matters.

Deputy District Officer Health (DDOH) and EDO-H do have a standard checklist for supervision that is used during supervisory visits. The DDOH submits report of his supervisory visits to EDO-H. Though standard checklist is available, again supervisory system is weak in terms of regularity and feed back to facilities.

Currently supervision is weak due to lack of clarity in roles and non-availability of the standardized supervisory check lists at many levels of care similarly, no mechanism of periodic review of the existing

[32] HMIS Instruction Manual
[33] Before Devolution Plan, Abstract Reports were sent directly to DGHS.
[34] Training 2000 Instruction Manual

checklist is in place at the moment. Defined time schedule and mechanism of feedback are deficient. Currently induction training is also lacking in areas of management and supervision, leading to lack of core competencies and skills.

4.7. Performance Assessment

Performance indicators are one of the management tools which when applied appropriately can measure the performance of health facilities. Currently no standard system of health facility performance assessment is available or practised in the province.

Preventive programme performance is presently judged through indicators e.g. immunization coverage, default rate of TB patients. There exists a system of reporting to the national level programme authorities.

Performance of staff is assessed through Annual Confidential Reports (ACRs). The procedure for assessment of staff is prescribed and is done annually and on standardized format. However, the assessment is subjective.

4.8. Referral System

The public health delivery system is composed of four tiers and referral is supposedly built in the design of levels of care and patients are being referred from lower level to higher level facilities in a whimsical manner. Written and standardized protocols do not exist regarding referral of patients. Service packages at referring and referred facilities are deficient and a defined transport policy does not exist. Feedback and follow up mechanisms are lacking and the staff is not fully acquainted or trained for deciding point of reference. Mapping and definition of referral catchment area of health facilities are currently unavailable. No policy guidelines have yet been devised for a comprehensive patient referral system in the province. The PDSSP has already initiated a study to develop a sound Referral System that is expected to be completed in late March 2008.

SECTION V

MSDS – The INTERNATIONAL PERSPECTIVE

5.1. Context

Different countries of the world, depending upon their level of socio-economic development and epidemiological profiles of their populations are at diverse levels of service delivery standards. This spectrum varies at one end, from countries striving to build MSDS, to those trying to achieve highest level of standards of care.

At this stage of reviewing and revitalizing MSDS, it is highly pertinent to look at the varied international practices regarding service delivery standards. The practices that worked well in the countries with similar context to that of Pakistan especially with respect to socioeconomic status, health system development and burden of disease, have been taken into account while developing proposal to bridge the gaps identified in the MSDS. The presentation of international practices has been organized as below:

a) Context: Socioeconomic and health profile of the countries has been described which serves as a reference for socioeconomic and health status of the country
b) Service Delivery Standards: of the countries have been narrated under different heads to make comparison easy and pick the 'best practices' interrelated with MSDS.

In the following paragraphs practices being followed internationally linked to MSDS of selected countries have been presented in abridged form.

Table 5.1 - Health Indicators of Selected Countries

Countries	Health Indicators		
	IMR	Under 5 mortality	MMR
Sri Lanka	15	23	59
India	68	95	400
Bangladesh	57	82	300
DPR Korea	14	23	105

Table 5.2 – Summary of International Practices[35]

Country	Standards							
	Health System			Community involvement		Services Package	Health infrastructure	
	Financing	Policy	Responsibility	Whole country	Part only		Network of health facilities	Hospital bed population ratio
Sri Lanka	Public	Yes	Provincial	Satisfactory		Well defined for all levels (including non-communicable diseases)	Well established	1:350
India	Public	Yes	Provincial	Satisfactory	Good in Kerala state only	Well defined for all levels (excluding non-communicable diseases)	Satisfactory	1:1400
Bangladesh	Public	Yes	Provincial	Satisfactory		Defined for all levels (excluding non-communicable diseases)	Satisfactory	1:3500
DPR Korea	Public	Yes	Provincial	Good		Well defined for all levels (including non-communicable diseases)	Very Well established	1:100

[35] WHO, SEARO Countries Health Situation

Country	Standards						
	Human resource			MIS	Referral	EDLs	
	Policy	Available human resource / 10,000 population					
		Doctors	Nurse			Standard list	Drug availability
Sri Lanka	Precise	4	9	Good	Good	Yes	90%
India	Imprecise	5	8	Satisfactory	Satisfactory	Yes	80%
Bangladesh	Imprecise	2	1	Poor	Poor	Yes	70%
DPR Korea	Precise	30	60	Good	Good	Yes	98%

5.2. Sri Lanka

Health Background

Sri Lanka has passed through the classical phases of demographic transition to reach the third phase of a declining birth rate and a relatively stable low death rate. Population was 19,359 thousand in 2000 with 22.4% people living in urban area (1999)[36]. The base of the population pyramid is contracting and the proportion of the population over 65 years is projected to be 12% by the year 2020. There has been a declining trend in mortality and morbidity in Sri Lanka. The crude death rate (CDR) and crude birth rate (CBR) was 5.7 and 17.3 per 1000 population in 2000. Life expectancy at birth in 2001 for females was 75.4 and for males 70.7 years. Sri Lanka has achieved an adult literacy rate of 92.5% for males and 87.9 % for females (1994) [37]. The MMR was reported to be 59.6 per 100,000 live births in 1999[38]. The infant mortality rate per 1000 live births was 15.4 (1998). The gross national product (GNP) per capita increased from 4.6% in 1991 to 5.9% in 1995.

[36] Sri Lanka, Country report on the third evaluation of the implementation of HFA strategy, 1997
[37] Sri Lanka, Department of Health Services, Ministry of Health, Annual Health Bulletin 2000
[38] Government reply to fax of HO/SEARO, CHS Department, dated 20 December 2001.

Health Policy, Strategy, and System

The national health policy seeks to consolidate what has already been achieved, as well as address new health challenges, such as the increasing prevalence of non communicable diseases, HIV/AIDS, substance abuse and the high incidence of suicides. A countrywide network of health facilities has been developed where free health care is provided. National strategies include the poverty alleviation programme and targeted interventions to meet the specific health needs of disadvantaged groups. Health system has been decentralized and works at four levels i.e. National, Provincial, Divisional and District.

Community Action

The National Health Policy recognizes community participation as an important component of the health development process, as evidenced by the participation of about 15,000 young volunteer health workers who assist in PHC activities/services. Community financing of health activities by philanthropists and voluntary groups in the community is not an unusual practice.

Services- Package

The services package emphasizes following components as important strategies for improving the health of the people: Health Education and Promotion, Maternal and Child Health/Family planning, immunization, prevention and control of endemic and common diseases. Sri Lanka is now also concentrating on non-communicable diseases and other emerging health problems.

Health Education and Promotion

A Health Education Bureau (HEB) at central level is responsible for health education and promotion services, with health educators operating at provincial and divisional levels. The main activities of the HEB include education and training, dissemination of health related information, advocacy for health, social mobilization, production and dissemination of IEC materials.

Maternal and Child Health

The total fertility rate is 2.0 (Health Survey 2000). The coverage of MCH/FP services is reflected by the following health services indicators: pregnant women attended by trained personnel during pregnancy (98%), deliveries attended by trained personnel 97% (Health Survey 2000), 98% infants were attended by trained personnel[39].

Immunization coverage under the EPI has been achieved and maintained even in remote areas. In 2000, the reported national coverage of infants reaching their first birthday with all EPI vaccines was 88% (Health Survey 2000). National immunization days for polio have been held. Hepatitis B vaccination is not routinely administered to children but is available to high-risk categories of health workers.

Prevention and Control of Endemic and Common Diseases

Strategies for prevention and control of notifiable diseases include immunization against the vaccine-preventable diseases, enhanced disease surveillance and control actions, training of medical officers and public health staff, a computerized database at central level, and environmental interventions with regard to safe water, sanitary latrines, and reduction of smoke pollution and vector control activities.

Infrastructure

There is now a comprehensive network of health centres, hospitals and other medical institutions located countrywide, with about 57,027 (2000) hospital beds (1 bed for a population 340) [40].

Human Resource

In 1992 the process for developing a National Health Policy was initiated and this policy was formally presented in 1997. A Human Resource Development Council was created to advise the cabinet of ministers on human resource development needs. Human resource figures reported for 2000 are physicians per 10,000 population 4.11, total number of nurses 14, 716 and number of public health nurses

[39] Sri Lanka, Department of Census & Statistics, Ministry of Finance & Planning, Demographic and Health Survey 2000, Colombo, May 2001
[40] Sri Lanka, Department of Health Services, Ministry of Health, Annual Health Bulletin 2000

and midwives 5,068. Over a 20-year period hospital beds have increased by about 15,000 and in 2000, 2.9 beds were available per 1000 population[41]. Training is provided in the following institutions: one faculty of dental services, 11 schools of nursing, one National Institute of Health Sciences, one medical research institute, and other institutions for health paraprofessionals.

Health Information System (HIS)

HIS is in place and consists of management information data and epidemiological information, including routine surveillance data for communicable diseases. A system to routinely monitor trends in non-communicable diseases and their risk factors has still to be established. The appointment of a Director for Health Information has administratively strengthened the process of HIS development. A steering committee has also been set up to network institutions and programs for data collection, analysis, use and feedback.

Essential Drugs List

All drugs on the list are available in Public Sector hospitals free of cost. An educational programme ensures that medical and paramedical personnel are informed regarding the use of essential drugs.

5.3. India

Health Background

Total population of India is 1,027 million (2001), urban population being 26.13%[42]. In 1999, the annual population growth rate was 1.74%[43]. In 1991 the sex ratio was 927 females per 1000 males that increased to 933 in 2001[44]. Population under 15 years is 35.6%[45]. The TFR decreased from 3.6 in 1991 to 2.85 in 1996-98[46]. Life expectancy at birth in 2001 for females was 63.39 years and for males 62.36 years[47]. Gross national product (GNP) per capita increased from 6340

[41] Sri Lanka, Department of Health Services, Ministry of Health, Annual Health Bulletin 2000
[42] India, Health Information of India 1997 & 1998, July 2000
43 India, Sample Registration System , SRS Bulletin, April 2001
44 India, Census of India 2001: Provisional Population totals, March 2001
45 India, Sample Registration System, Statistical Report 1998, October 2000
46 India, National Family Health Survey (NFHS-2), 1998-99, October 2000
47 India, Health Information of India 1997 & 1998, July 2000

Indian Rupees in 1991/92 to 13,193 Rupees in 1997/98. Overall literacy rate for males is 75.85% and for females is 54.16%[48].

The CBR declined from 29.5 in 1991 to 26.1 in 1999, while the CDR declined from 9.8 to 8.7 per 1000 population[49] over the same period. The infant mortality rate (IMR) was reported to be 68 per 1000[50] live births in 1994-98 and the maternal mortality ratio (MMR) for 1998 was estimated at 407 per 100,000[51] live births.

Health Policies and Strategies

Health is primarily a state responsibility. The Centre is responsible for health services in Union territories without a legislature and is also responsible for developing and monitoring national standards and regulations, linking the states with funding agencies, and sponsoring numerous schemes for implementation by state governments. Goals and strategies for the public sector in health care are established through a consultative process involving all levels of government through the Central Council for Health and Family Welfare.

Community Action

The broad areas of community participation at grassroots levels are seen in the village health services scheme and the formation of village level committees. Community action has also successfully been used in disease control programmes such as malaria and in areas such as the provision and maintenance of drinking water schemes and sanitation.

Infrastructure

Specific efforts have been made to consolidate and strengthen the PHC infrastructure, under the minimum needs programme, by providing enhanced assistance to regions with severe health problems, supporting voluntary organizations, improving IEC activities, etc. The focus of the 8th plan has been to improve access to health care for the underserved and underprivileged segments of society. In view of the high maternal mortality, upgrading of existing maternal

48 India, Census of India 2001: Provisional Population Totals, March 2001

49 India, Sample Registration System , SRS Bulletin, April 2001

50 India, National Family Health Survey (NFHS-2), 1998-99, October 2000

51 India, Sample Registration System, SRS Bulletin, April 2000

health facilities and establishing First Referral Units (FRUs) have been prioritized. For expansion of the infrastructure towards consolidation and operationalization, the following targets have been set: One sub centre and a Primary Health Centre (PHC) for a population of 5000 and 30,000 (plains) respectively. One Community Health Centre (CHC) with 30 beds covering a population of 80,000 to 120,000 acting as a referral centre for four PHCs. Urban Family Welfare Centres (FWCs) have been set up to provide family planning services. Currently there is one hospital bed for a population of 1450[52].

Services Package

The Service Package has the following components; Health Education and Promotion, MCH/Family Planning Services, Immunization, Prevention and treatment of endemic and common diseases.

Health Education and Promotion

It has been an integral component of all national health and family welfare programmes. The IEC approach uses a community-based strategy. Interpersonal communication at grassroots level is being strengthened by establishing women's health organizations (MSS) in villages. Training of frontline workers and field functionaries in various departments is being strengthened. The sensitization of local leaders is implemented through orientation training camps. Inter-ministerial committees at central and state levels meet periodically to review the progress of health education activities. NGOs and other professional organizations have joined with government agencies all around the country to improve health education. The media division of the Central Health Education Bureau has been strengthened to support media promotion activities as well as materials production. National health programmes such as leprosy eradication, tuberculosis control, malaria eradication, and HIV/AIDS control are also supported with health education and promotion strategies and activities specifically designed to suit programme needs.

[52] India, Health information of India 2000

MCH/Family Planning

The proportion of pregnant women attended by trained personnel in 1995/96 was reported to be 65.1%. The proportion of deliveries in 1995/96 attended by trained personnel (including trained TBAs) in the urban sector was 73.5% and in the rural sector 33.5%. 50 % of eligible couples are using Family Planning services[53].

Immunization

The proportion of infants reaching their first birthday who were fully immunized in 2001 was 49.0%. The strategies to maintain and improve coverage include outreach immunization sessions, intensification in high risk areas, NIDs and mop-up rounds, strengthening surveillance, intensifying IEC and training, maintaining vaccines and essential supplies, and improving supervision and monitoring.

Prevention and treatment of endemic and common diseases

A key strategy of Malaria action programme is the implementation of short and long term measures in selected high risk areas, high powered boards to expedite inter-sectoral cooperation, community involvement in anti-malarial activities with intensified IEC, and capacity building at the central and grassroots level through training. The national tuberculosis control is using the DOTS strategy. Diarrhoeal diseases are being addressed through the promotion of exclusive breast-feeding, good child feeding practices, and the timely use of ORT during episodes of diarrhoea.

Human Resources

The available data shows a national total of 503,900 physicians giving a ratio of 5.2 per 10,000 populations. The number of registered nurses/midwives totaled 607,376. There are 6.9 hospital beds for a population of 10,000[54]. The National Institute of Health and Family Welfare (NIHFW) is involved in providing in-service training for all categories of health and family welfare personnel. The ratio of nurses to doctors is also below the optimum.

53 India, National Family Health Survey (NFHS-2), 1998-99, October 2000

54 India, Health Information of India 1997 & 1998, July 2000

HMIS

A computer-compatible HMIS has been designed in collaboration with participating states, the National Information Centre (NIC) and WHO. In addition, each of the disease control programmes has its independent MIS. Morbidity and mortality data in respect of internationally quarantinable diseases (including cholera) are received by CBHI each week. Based on information received, weekly epidemiological reports are generated and sent to WHO. Surveillance of the major communicable diseases other than those covered by the international health regulations is also maintained and reported monthly.

Essential Drugs List

The government, in consultation with the states and relevant agencies, has developed a national Essential Drugs List comprising over 300 drugs classified for use at the different levels of health care. The List serves as a guide to procuring agencies in central and state governments.

Kerala is a relatively small State located on the southern tip of India. The following table encapsulates the salient features of Kerala's development vis-à-vis the country.

Table 5.3 – Comparison of Socio-Economic Indicators

Indicators	Kerala	India
Area	38863 sq.km	3287263 sq.km
Population	29.1 Million	846.3 Million
Literacy Males Females	 93.62 % 86.17 %	 64.13 % 65 %
HPI	0.15	36.7
HDI	0.628	0.451
IMR	13	74
Life Expectancy Males Females	 70 72	 60 62
Per capita income	Rs. 17,756	Rs.14, 682

Kerala has followed an unorthodox strategy of decentralization. It reverses the traditional paradigm of gradual transfer of powers to local governments in accordance with perceived improvement in their capacities to exercise them. This methodology first transferred powers and then set up umpiring systems; it devolved funds and then structured procedures and systems. It facilitated learning by doing and at the same time was backed up by a system, which responded quickly to the ups and downs of the process.

In a sense this reversal of the conventional sequence, placed an onus on the Government to ensure that the right environment was created for the local governments to function well and appropriately. At the same time the local governments were pushed to carry out their responsibilities to the best of their ability. To operationalize decentralization, Kerala chose the path of participatory local level planning as the entry point. This succeeded to a considerable extent in harnessing public action in favour of decentralization. In order to push the system and force the process, a campaign approach was followed for decentralized planning - known as the 'People's Planning Campaign'. To a large degree the campaign has succeeded in setting the agenda for decentralization i.e. legal entitlements of local governments.

The legal entitlements were brought in through new legislations setting up a three-tier local government system in rural areas and a single tier local government system in urban areas. In rural areas the three tiers consist of 991 Village Panchayats at the grassroot level having an average population of about 30,000, 152 Block Panchayats at the intermediate level having an average population of about 200,000 and 14 District Panchayats having an average population of about 2.25 million.

All the development institutions and government offices dealing with developmental matters at the District level and below have been transferred to the concerned local governments along with staff. In the Health sector all institutions other than medical colleges and big regional specialty hospitals have been placed under the control of the local governments. The Integrated Child Development Service (ICDS) is fully implemented by Village Panchayats and Urban Local

bodies. Care of the disabled, to a substantial degree, has become a local government responsibility.

Kerala has achieved all the major health indicators targeted for "Health for All by 2000 AD"[55]. The outreach of developmental services has improved a lot and there is less of sectoralism in decentralized programmes. Greater convergence has contributed to reducing the ratchet effect of poverty. Local Governments particularly Village Panchayats, tend to view problems holistically and come out with a solution first and then only decide on the agency of implementation. In view of the financial constraints and skill limitations there is greater emphasis on locally appropriate, affordable solutions. The innumerable opportunities for participation structured into Kerala's decentralization process has helped the poor in gaining confidence and in moving from lower levels of participation into higher forms of direct social action like management of facilities, creation of demand for services and so on.

5.4. DPR Korea

Health Background

Total population of DPR Korea is 22,963 million (2000). Urban population is 60.9%. In 1998, the annual population growth rate was 0.9%. The CBR and CDR in 2000 were 17.5 and 8.8 per 1000 population respectively. The total fertility rate (TFR) was 1.51 in 1999. Life expectancy at birth in 2000 for females was 70.94 years and for males 63.04 years[56]. The gross national product (GNP) per capita declined from USD 970 in 1991 to USD 479 by 1996[57]. DPR Korea has achieved an adult literacy rate of 100% for both males and females (1996)[58].

Infant mortality and under five mortality rate was reported to be 14.1 and 23 per 1000 live births and MMR being 105 in 1996. Prevalence of low birth weight (weight <2500 grams at birth) is 9% and stunting in children less than 7 years of age (%) is 15.6. Diarrhoea and acute respiratory infections in children under five years of age and non-

[55] http://www.kerala.gov.in/dept_health/healthstatus.htm
[56] Data received from the country by fax, 18 January 2002 WHO
[57] DPR Korea, Country report on the third evaluation of the implementation of the HFA strategy, 1997
[58] DPR Korea, Country report on the third evaluation of the implementation of the HFA strategy, 1997

communicable diseases, primarily cardiovascular diseases and cancer in elderly population, are among the leading causes of mortality in the country.

Health Policy, Strategy and System

The fundamental principles of the national health policy include universal and free medical care services, maintaining preventive and promotive health services, and the development of Juche-oriented[59] medical science and technology. The state is responsible for the health of the people.

PHC is organized around the "section doctor" system that has direct linkages with the "household doctor" system. The latter is an outreach component of the section doctor system. The eight essential elements of PHC are implemented through this system. The PHC health worker is a doctor or feldsher[60]. This system is supported by a referral system to the higher levels of care.

Community Action

Health activities are organized as a peoples' movement. The "model healthy county/district movement" is a mass movement to organize and mobilize the people to collective action. Peoples' Committees review and evaluate progress.

Services Package

Service-Package is organized into following components: Health education and promotion, Maternal and Child health/Family planning, treatment and prevention of non-communicable diseases.

Health Education and Promotion

A well-organized health education system exists from centre to provincial, city and county/district levels. There is a health education agency under the Ministry of Public Health and a health education hall in each province. The state assigns doctors specialized in health education to sanitary and epidemiological stations and hospitals at

59 Juche idea is based on the principle that man is the master of everything and decides everything. Such a human-centered state policy firmly guarantees successful implementation of HFA and constant development of the country's health work

60 who is qualified to deliver health services to the households under his charge

central, provincial, city and county/District levels. Health education is also incorporated in the school curriculum. A mass "sanitary propaganda system" involves youth leagues, trade unions, women's groups, sanitary volunteers and the mass media.

Maternal and Child health/Family planning

In 1995, the proportion of pregnant women attended by trained personnel during pregnancy was 100% and at delivery 98.6%. There is a well-developed health services system for MCH, with the Pyongyang Maternity Hospital at central level, provincial maternity hospitals, and obstetrics/gynecology departments in peoples' hospitals at city and county/District level. In addition, maternity rooms are found in urban polyclinics and in rural hospitals. Pregnant women are registered at three months gestation and cared for throughout pregnancy and delivery. A similar institutional infrastructure is available for childcare from central to rural levels.

Treatment and Prevention of Non-communicable Diseases

In the absence of locally endemic diseases, the management of non-communicable diseases is of importance. Various health and medical activities are available at domiciliary level to improve diagnosis and treatment for chronic illnesses.

Infrastructure

DPR Korea has a well-developed health infrastructure at National, Provincial, City and county levels.

Human Resources

Health facilities are equitably distributed in both urban and rural population. There are 29.7 physicians and 136.1 beds per 10,000 population[61]. DPR Korea is employing more specialists in its larger specialized hospitals and improving physical facilities in the county peoples' hospitals, rural hospitals and clinics. It is currently implementing a scheme to ensure the rational distribution of health facilities and medical equipment at PHC level. DPR Korea has improved coverage at the peripheral level by intensifying the training of health workers. Training units within the MOPH and the Planning

61 DPR Korea, Country report on the third evaluation of the implementation of the HFA strategy, 1997

Commission are responsible for planning human resource needs for health, implementing training programmes, distributing health workers equitably, and evaluating their activities. The regular medical education system produces an adequate number of health workers. It also provides in-service and reorientation training as well as specialized postgraduate education.

Health Information System

An efficient and effective management information system is in place to gather data for evidence based planning. The Information Institute of Medical Sciences and larger medical institutions with medical information sections generate medical information. The Institute of Public Health Administration deals with public health information and administration

Essential Drugs List

DPR Korea has a national essential drugs list that uses generic names. It also has a national drug formulary and national therapeutic guidelines. The proportion of essential drugs available in rural health facilities was 85% in 1995. A system is also in place to monitor drug quality in the country.

5.5. Bangladesh

Health Background

The total population of Bangladesh is 129.6 million (2000), urban population being 20.1%. The annual population growth rate has declined from 2.04% in 1991 to 1.51% in 1998. Similar declining trends are seen over the same period for the crude birth rate (31.6 to 19.9), crude death rate (11.2 to 4.8) and total fertility rate (4.24 to 3.3). Life expectancy at birth in 1998 for females was 60.5 years and for males 60.7 years. There has been a slow but steady increase in GDP per capita from US $217 in 1991 to $ 373 in 2000[62]. Bangladesh has

62 Bangladesh, Bangladesh Bureau of Statistics, Strengthening the National Accounts of Bangladesh, Dhaka, April 2000

achieved an adult literacy rate of 71.9% for males and 62.2% females (1999)[63].

IMR declined from 92 to 57.0 per 1000 live births and the MMR declined from 470 in 1991 to 300 per 100,000 live births in 1998[64]. Prevalence of low birth weight (weight less than 500 grams at birth) is 19.5% and stunting in children less than 5 years of age is 44 % (1999)[65]. Diarrhea and Acute Respiratory Infections are among the primary causes of mortality in children under five years of age. Morbidity is mainly due to infectious, parasitic and vector-borne diseases. Of the non-communicable diseases, cancer and cardiovascular diseases are the leading causes of morbidity and mortality.

Health Policies and Strategies

Priority in the national health policy is given to ensuring universal accessibility and equity in health care, with particular attention to the rural population. Efforts are being made to develop a package of essential services based on the priority needs of clients, to be delivered from a static service point, rather than providing door to door visits by community health workers. Privatization of medical care at the tertiary level, on a selective basis, is also being considered. Functionally, health and family planning personnel work closely at Police Station, Union and outreach levels. Committees have also been formed to integrate the two departments.

Community Action

The roles of the individual, family and community are emphasized in the intensified action programme for PHC implementation, which involves decentralized planning at Police Station and Union level. Through inter-sectoral collaboration and community participation, a joint action plan has been implemented involving 60,000 village health volunteers (one for 50 households). The participation of teachers and religious leaders is encouraged. The information department and mass media inputs are also utilized to support IEC activities.

63 Bangladesh, Demographic and Health Survey 1999-2000, Dhaka, May 2001
64 Bangladesh, Ministry of Health and Family Welfare, Bangladesh Health Bulletin 1998-99 (draft), Dhaka, August 2001
65 Bangladesh, Demographic and Health Survey 1999-2000, Dhaka, May 2001

Services Package

The Service Package is organized into the following components: Health Education and Promotion, Maternal and Child health/Family Planning, Immunization, Prevention and Control of Endemic and Common Diseases.

Health Education and Promotion

Educational support to national health programmes has been provided by the Health Education Bureau (HEB). Emphasis is being given to school health education, hospital health education and coordination with NGOs.

Maternal and Child health/Family Planning

During 1999-2000 the proportion of women attended by trained personnel during pregnancy was 33.7 %, deliveries attended by trained personnel was 21.8%[66]. Activities such as providing comprehensive reproductive health, family planning and essential obstetric care (EOC) have been initiated. Training and logistic supply management for MCH/FP is also being strengthened.

Immunization

The proportion of infants who have been fully immunized in 1999 was 52.8%. Immunization services have been extended up to village level and community support is readily available. Three NIDs for polio have also been successfully implemented during the last three years.

Prevention and Control of Endemic and Common Diseases

The tuberculosis control programme has been integrated with the general health services. With the integration process, training of 26,000 health workers has been completed and cooperation between the government and NGOs strengthened. Malaria control strategy emphasizes disease control aspects and endorses early diagnosis, prompt treatment, recognition of treatment failures and management of severe and complicated cases in hospitals. The programme for the control of ARI continues to be implemented according to the WHO strategies.

66 Bangladesh, Demographic and Health Survey 1999-2000, Dhaka, May 2001

Human Resource

Significant changes in human resource for health include production and deployment of more health and health-related personnel, refresher trainings for health personnel in service, and greater use of health volunteers. In 1997, the distribution per 10,000 population was as follows: physicians 2.034, nurses 1.126, pharmacists 0.57, dentists 0.98, other health providers 4.93, and 3.34 hospital beds per 10,000 population[67].

HMIS

Other than a well-organized HMIS, a weekly epidemiological surveillance and outbreak control reporting system for selected communicable diseases has been initiated throughout the country.

Essential Drugs List

As early as in the 1980s, Bangladesh had a national essential drugs policy and a list of essential drugs to be procured and used in health services. Both these are maintained and updated methodically. The Government has also launched an education programme for providers and users on the rational use of drugs.

67 Bangladesh, Ministry of Health and Family Welfare, Bangladesh Health Bulletin 1998-99 (draft), Dhaka, August 2001

SECTION VI

MSDS – PACKAGE

Government of Punjab (GoPb), considering the dismal state of health status, upcoming challenge of double BOD, MDGs, scientific and technological advancements, is keen to address all issues related to health services under the auspices of the Health Sector Reform (HSR) agenda to improve the health status of people of the Punjab. In this context development of the MSDS is important starting point for the result-oriented implementation of the HSR agenda.

Designing and developing pro-poor service delivery package and standards for health facilities is the cornerstone of the strategic vision put forward by the GoPb. It will ensure not only quality services accessible to all (especially to the poorest and deprived communities), but also set standards for different levels of health care.

No country in the world can provide health services to meet all the possible needs of the population; however a minimum package of public health and clinical interventions for different levels, which are highly cost-effective and deal with major sources of disease burden, could be provided in low-income countries remaining within the same resources. Governments should ensure that, at the least, poor populations might have access to these services.

The proposal for new standards is based on the gaps identified in the situation analysis, international practices and has been organized within eight "domains" which are; Services-Package, Physical Standards, Drugs and Supplies, Human Resource, HMIS, Supervision, Performance Assessment and Referral.

6.1. Services Package

Services Package comprises interventions that address the major causes of the burden of disease, all elements of Primary Health Care in the province and shall be the cardinal reference in determining the allocation of public funds and other essential inputs. It will enable the government to allocate the greater proportion of its budget to the package in such a manner that health spending gradually matches the magnitude of priorities within the Burden of Disease and elements of Primary Health Care.

The setting of priorities for the use of public funds among type of health services needs to take into account relevant country characteristics.

These include an understanding of current BOD, cost-effectiveness of interventions, prioritizing among the cost effective interventions that avert high disease burdens. In addition, the share of and what the private sector is providing, the epidemiological profile of the population, the level of education of consumers, the social status of women and considerations of equity should also be factored in. it can safely be claimed that the MSDS Package has been formulated in line with these critical considerations.

Table 6.1 – Services Package

A. Preventive Services[68]

Services/ Interventions	Components	Standard of care	Current Status Punjab	Minimum level of acceptance*	Level of Care
Immunization	Measles, Diphtheria, Tetanus, Polio, Tuberculosis, Pertussis, Hepatitis-B, and Vitamin-A	Every child aged one year should be immunized against 7 diseases	Overall coverage 78%; 80.3% children are vaccinated against measles	At least 90% of all children aged one year should be immunized against 7 diseases and minimum of 80% mothers of child bearing age should receive 5 doses of TT or two doses during pregnancy	All levels of care
	Tetanus Toxoid Immunization	Every mother of child bearing age should receive 5 doses of TT or 2 doses of TT during pregnancy	TT Coverage of CBA mothers 72.9%		
Basic Maternal Care					
Antenatal Care	Health history Physical examination Laboratory examination, Blood pressure monitoring, Iron and Folic Acid supplementation Immunization against Tetanus Nutritional counseling, FP, self care & recognition of danger	All pregnant women should have four properly spaced antenatal care assessments by or under supervision of a skilled attendant	ANC by skilled attendant 44% **	More than 80% of all pregnant women should have, at least three properly spaced antenatal care assessments done by or under supervision of a skilled attendant	All levels of care

[68] MICS, Punjab, 2004, Health Facility Assessment Survey (HFA), PAIMAN, Pakistan, Regional Health Situation, Pakistan, World Health Organization (WHO), Reproductive Health service Package, Pakistan, Standards of Maternal and Neonatal Care, World Health Organization (WHO), EPI .Coverage Evaluation Survey (CES), EPI Cell Ministry of Health, Islamabad, Nutritional Survey, Pakistan 2002-03

Services/ Interventions	Components	Standard of care	Current Status Punjab	Minimum level of acceptance*	Level of Care
	signs (including pre-eclampsia), sleeping under Insecticidal Treated bed Nets (ITN), Intermittent Presumptive Therapy (IPT) and referral when needed, Fetal growth monitoring, Promotion of breast feeding				
Natal Care	Normal delivery, recognize complications and referral Management of complicated delivery	Natal care by a skilled birth attendant at home or institutions All deliveries should be conducted with adequate privacy All the complicated deliveries should be referred to facilities which can handle them	33% One third of the complicated pregnancies reach a health facility (UNFPA: CPA Report 2000)	More than two thirds of deliveries should be conducted by skilled birth attendant at homes or institutions A separate or partitioned room should be reserved exclusively for delivery All women with complications of deliveries should be properly handled and referred to facilities which can treat them appropriately	All levels of care THQ, DHQ hospitals
Post Natal Care	Integrated postpartum check ups for mother and newborn. FP counseling, Nutritional counseling, Micronutrients supplementation	Two postpartum visits; first visit within 24 hours of delivery by a skilled personnel	30%**	At least two thirds of all women should receive postpartum care on prescribed criteria	All levels of care

Services/ Interventions	Components	Standard of care	Current Status Punjab	Minimum level of acceptance*	Level of Care
	and promotion of breast feeding Peri-natal and Maternal mortality reviews	Each maternal death should be carefully reviewed			THQHs and DHQHs
Inter natal Care	FP services, nutritional counseling and HE	Every married CBA shall be provided with these services			All level of care
Prevention and management of STIs and RTIs	Syphilis, Gonorrhea, Hepatitis-B, C, HIV/AIDS, Trachoma Chancroid, Papilloma PID, Genital herpes, Donvanosis, Urethritis, Vaginitis, Salpingitis etc etc.	All patients in reproductive age (especially high risk groups) should be appropriately examined for STIs and RTIs and be treated according to WHO protocols of Syndromic Case Management Partners of all the diagnosed cases should be tracked and treated	**---***	All patients of reproductive age attending health care facilities should be appropriately examined and treated	All levels of care
FP Services	FP counseling and services for females and males	All eligible couples will be provided necessary information and services on FP	36%	Nearly two thirds of all eligible couples will be provided knowledge and information on Family Planning	All levels of care (Surgical FP services will be

Services/ Interventions	Components	Standard of care	Current Status Punjab	Minimum level of acceptance*	Level of Care
				methods to make informed decisions regarding FP.	available at RHC and above)
Major Micronutrient Deficiencies	Iron, Iodine, Vitamin A, Folic Acid and Vitamin D	All deficiency cases seen at any facility should be recorded, supplemented and followed	Vitamin A deficiency among mothers 9.9% and among children under 5 years 3.0%, Iodine among mothers 21%, among school age children 6.6%, Iron deficiency among children less than 5 years 64% and mothers of less than 5 years children 45%,	Universal awareness campaigns on media Fortification of salt for Iodine, vegetable oils for Vitamins A & D, wheat for Iron and Folic Acid.	At all levels of care
Mental Health	Identification, Diagnosis, Counseling, Treatment and rehabilitation particularly of	Patients coming with mental health issues should be thoroughly	----------	Counseling services at all levels of care;	All levels of care

Services/ Interventions	Components	Standard of care	Current Status Punjab	Minimum level of acceptance*	Level of Care
	cases of gender base violence, child abuse, drug abuse, anxiety, depression etc	assessed, counseled and/or referred to appropriate level of care		Treatment and rehabilitation at THQHs and DHQHs	
Screening	Based on local BOD, screening of the prevalent health problems like Hypertension, Diabetes, Anemia, Malnutrition, Obesity, vision etc	Screening of the vulnerable groups	----------	All health facilities should carry out at least two camps in their respective areas.	At all levels of care
Outreach Services	PHC to community Home visits of LHVs for Health Education, ANC, postnatal care, nutritional advice, FP services and provision of newborn and early childhood care. Home visits of Midwife for ANC planned domiciliary. Natal care, Post Natal care, nutritional advice, FP services, and provision of newborn and early childhood care. Visit of WMO from RHC to BHU for Obstetrics, Gynaecology Problems and technical/clinical support to LHV	LHVs should conduct 2 visits a week to provide MCH services at the door steps of the community Midwife should conduct 4 visits a week to provide MCH services at the door steps of the community WMO should spend 20% of her working hours for visits to BHUs (with out WMOs) to provide consultation for	----------	At least 80% of women of child bearing age of the catchment area should be provided with these services. They will work in close liaison with LHWs.	At all levels of care and community based

Services/ Interventions	Components	Standard of care	Current Status Punjab	Minimum level of acceptance*	Level of Care
		Obstetrics, Gynaecology problems and technical/clinical support to LHVs			
	SHC to PHC - Visits of the Consultants/Specialists	All Specialists from THQH should pay one visit every month at RHC to provide services to the population and capacity building of the medical staff.		At least Specialists of the essential specialties (Physician, Surgeon, Pediatrician and Gynecologist) should provide services at RHC	RHC
ECCD	Nutrition, Health care, environmental safety, early childhood education and learning for growth, cognitive and psychological development (Health & Nutrition 0-2 years, Early Development Activities 3-4 years, *Katchi* class 5 years)	Comprehensive and Integrated ECCD services must be available for all 0-5 years of age	----------	Defining ECCD Service Package, key actors/sectors for services provision and mechanism for collaboration Legislative framework for ECCD centres Guidelines for ECCD services (family care, Day care centre, ECCD centres and at school) Capacity building of ECCD services providers	Home, Day care centres, ECCD centres, Schools

Services/ Interventions	Components	Standard of care	Current Status Punjab	Minimum level of acceptance*	Level of Care
				(LHWs, ECD worker/Centre Class Teacher and School Council	

* Minimum level of acceptance is a measure of expected performance and the figures quoted are taken (lower figure) from the international practices as for example Sri Lanka, DPR Korea. Their evaluation has been interlinked to Medium Term Budgetary Frame work (MTBF).

**MICS. Antenatal visits ranged 1 to 6 and postnatal visit was one, time of visit was not included in the questionnaire.

*** Current data not available

------- Either Service is not available at all or in the form as proposed

Services-Package

B. Promotive Services*

Services/ Intervention	Components	Standard of care	Current Status Punjab	Minimum level of acceptance	Level of Care/Service level
Health Education	Creation of awareness and demand for (I) Immunization (II) Pre, Natal and postnatal care (III) Family Planning (IV) Good Nutrition practices for all age groups especially children and mothers (V) Good Hygienic Practices (VI) Health Education regarding AIDS, STIs and communicable diseases (ARI and Diarrheal diseases, Malaria, TB, Hepatitis, Vaccines preventable diseases, High Maternal and Infant Mortality, Malnutrition, Skin diseases). (VII) Awareness and information regarding Safe water, prevention of Drug abuse, risk of needle sharing, prevention of injuries, burns, child abuse, gender based violence and improving health seeking behaviors by educating against ignorance and superstitions in health matters, development/adaptation of healthy life style behaviors e.g. no smoking, exercise etc	All healthcare providers should deliver health education messages to the patients through Inter Personal Communication (IPC), visual displays in the facility, and HE videos running on TVs in the out patients departments.	--**	Regular national and local campaigns on media (print and electronic) for important health issues. A strong element of Behaviour Change Campaign to complement it.	All levels of Care

* Health Education focus areas have been adapted from BOD Study (World Bank), Pakistan Towards Health Sector Reforms, strategy and recommendations of many national level documents.

** Current data not available

Services-Package

C. Curative Services

Services/ Intervention	Components	Standard of care	Current Status Punjab	Minimum level of acceptance	Level of Care/Service level
Basic EmONC services	Performance of manual removal of placenta, removal of retained products (e.g., vacuum aspiration), assisted vaginal delivery (e.g., forceps) and availability of parenteral antibiotics, oxytocic drugs, anticonvulsants and post abortion care Basic newborn resuscitation, Warmth (drying and skin-to-skin contact), Eye prophylaxis, Clean cord care, Early and exclusive breast feeding	All facilities should provide Basic EmONC Care	All DHQ Hospitals, 38% THQ Hospitals and 23% RHCs*	All facilities should have arrangements for basic EmONC.	RHCs and facilities above this level
Comprehensive EmONC Services	All functions of basic EmONC and performance of surgery (e.g., Cesarean section), blood transfusion, Incubator, Advanced resuscitation support and Pediatric Nursery	All DHQH and THQH should provide Comprehensive EmONC	75 %* DHQH, 33% THQH	All DHQH and THQH should have arrangements for comprehensive EmONC services.	THQHs and DHQHs
Management of	ARI, Diarrhoeal diseases,	Integrated Management of	Piloted in few	Scaling up in	All levels of

Services/ Intervention	Components	Standard of care	Current Status Punjab	Minimum level of acceptance	Level of Care/Service level
Sick child up to 5 years of age	Malaria, Measles, Ear & throat problems, Tetanus Neonatorum, Malnutrition, Anemia, childhood Tuberculosis and de-worming	Childhood Illness (IMCI) approach recommended by WHO, UNICEF	districts in Pakistan --	Punjab	care All levels of care
Dental Care	Basic dental care	Basic care available at all levels of care			RHC and above
Medical Out Patient Services and In Patient Services	Specialized dental care	Specialist dental care will be available	--		All levels of care
	Basic Medical Care**,	Routine medical care for communicable and non-communicable diseases will be available at all levels			THQ DHQ Hospitals
	Specialist Medical Care***	Specialist medical care will be available at THQ and DHQ hospitals			
Surgical Out Patient services and In Patient services	Basic surgical care (like incision drainage, splints and control of hemorrhage)	Basic surgical care will be available at all levels	--		All levels of care
	Specialist Surgical Care***	Specialist surgical care will be available at THQ and DHQ hospitals			THQ DHQ Hospitals
Mortality review	All health facility deaths should be reviewed carefully	All health facility deaths should be reviewed by a designated team		At least at DHQHs	THQHs, DHQHs
Emergency	All emergencies, medical,	24 hour emergency services		24 hour	BHU, RHC, THQ,

Services/ Intervention	Components	Standard of care	Current Status Punjab	Minimum level of acceptance	Level of Care/Service level
Services	surgical and others	free of cost will be provided at RHC, THQH, DHQH		emergency services free of cost will be provided at RHC, THQH, DHQH and 8 hours (morning) at BHU	DHQ Hospitals
	Trauma	All THQHs and all DHQHs should have Trauma Centres		At least all THQHs along the highway and all DHQHs should have Trauma Centres	THQHs, DHQHs
	Burns	All DHQHs should have Burn Units		All DHQHs should have isolation facility for burn patients	DHQHs
Blood Transfusion Services	Blood grouping, Screening for HIV/AIDS, Hepatitis B, C and cross Matching	All THQHs and DHQHs should provide Blood Transfusion Services round the clock		All THQHs and DHQHs should provide Blood Transfusion Services	THQHs and DHQHs
Diagnostic Services	Basic Diagnostic	Urine Routine examination (RE), urine sugar, blood RE and malarial parasite		All the services mentioned in standard of care should be available at	BHU
	Routine Diagnostic	Blood complete examination and Urine complete examination X-ray,			RHC and above

Services/ Intervention	Components	Standard of care	Current Status Punjab	Minimum level of acceptance	Level of Care/Service level
	Advanced Diagnostic	Ultrasound Basic, Routine and advanced tests e.g., Histopathology, Microbiology, biochemical profile, Lipid profile, Renal profile, Gastroscopy, Endoscopy and CT Scan		appropriate level of care	THQ and DHQ hospitals CT Scan at DHQHs

* Figures are from four districts only, may not be representative and could be viewed as rough estimates of the situation (Ref: Health Facility Assessment Survey (HFA), PAIMAN, Pakistan).

****Communicable Diseases**: ARI, Hepatitis A, B, C, Measles, Malaria, HIV/AIDS, STIs/RTIs. TB, Diarrheal diseases, dengue fever, food borne, water borne diseases and others

Non-Communicable Diseases: Diabetes, hypertension, cancer, cardiovascular diseases, injuries/accidents, Rheumatoid Arthritis, Geriatric problems and mental illness.

Others: Snake bite, dog bite

***THQ Hospital: Presently Standard specialists include Surgeon, Anesthetist, Physician, Gynecologist, Pediatrician, and Eye specialist, Orthopedic Surgeon, Pathologist and Radiologist.

***DHQ Hospital: At present Standard Specialties are Surgery, Anesthesia, Medicine, Gynecology, Radiology, Pathology, Eye, ENT, Pediatrics, Urology, Orthopedics, Physiotherapy, Cardiology, Neurosurgery, Psychiatry, Chest Diseases, Dermatology, and Pediatrics surgery

--Not applicable

Services-Package

D. Rehabilitative Services

Services/ Intervention	Components	Standard of care	Current Status Punjab	Minimum level of acceptance	Level of Care/Service level
Non Invasive	a. Physiotherapy b. Psychiatric c. Psychological d. Social e. Nutritional f. Care of terminal ill patients (Palliative care) This includes provision of symptomatic care, correction of anemia, treatment of secondary infections, management and dispensing of palliative care medicine, pharmacovigilence and drug use monitoring	All patients requiring any type of rehabilitation should be provided at appropriate level of care	- - - -	All patients requiring any type of rehabilitation should be provided at appropriate level of care	All levels of care
Invasive	a. Surgical				THQ, DHQ hospitals

- Current data not available

National Programmes

Programme	Components	Standard of care	Current Status Punjab	Minimum level of Acceptance	Level of Care
HIV/AIDS Prevention and Control	1.Information, Education, Communication (IEC) 2.Surveillance 3. Clinical Management 4. Counseling & Home Care 5. Safe Blood Transfusion 6. Management of STIs. 7. Post Exposure Prophylaxis (cases of rape, accidental prick etc)	1.Prevalence of HIV/AIDS in general population must be kept less than 1 % and prevalence of 2.HIV/AIDS in all sub- population presumed to observe high-risk behaviours must be kept less than 5 %[69] 3. All exposed cases should get prophylaxis within specified /stipulated time (preferably within 48-72 hours)[70]	1.General population 0.1% 2. IDUs 30% 3. MSWs 7.5% 4. FSWs almost 1 %(Round -2 Biological testing results, HASP)	1. Behavior Change Communication (BCC) through Media (Electronic and Print) and Inter Personal Communication (IPC) 2. 100%screening of Blood and its products in public sector 3. 80% of the HIV positive should have CD4 lymphocyte count done and all those who have count less than 200/micro-liter[71] be given anti-viral therapy and supportive treatment	All levels of care

[69] "Asian Epidemic Model" Word Bank (2004), Washington DC
[70] Antiretroviral Post exposure Prophylaxis, Department of health and Human services USA.
[71] Guidelines for Home Based Care Services. National AIDS Control Program, MOH Tanzania. Range is 200 to 350; however treatment has been shown most effective if therapy is started when immune system is already compromised (WHO Clinical staging III, IV and /or CD4 count below 200).

Programme	Components	Standard of care	Current Status Punjab	Minimum level of Acceptance	Level of Care
				4. All HIV positive should be provided counseling 5. Syndromic management of STIs patients	
National Tuberculosis (TB) Control Programme/ TB DOTS Strategy	1. Identification, diagnosis 2. Treatment 3. Prevention and control of TB	1. All those who have cough for more than 3 weeks or cough more than 2 weeks with blood in sputum/other associated symptoms suggestive of TB must be investigated for TB as per DOTS protocol 2. All (100%) those who have been diagnosed be treated as per DOTS Strategy	1. Incidence of TB in Pakistan 180/ 100,000 per year (WHO-Report) 2. Case detection Rate 50% 3. DOTS treatment success rate 75% 4. Default rate more than 5 % (ASD-Report)	1. Case detection Rate 70% 2. DOTS treatment success rate 85% 3. Default rate less than 5% 4. Sputum conversion rate more than 90%	All levels of care
Malaria Control	1. Early diagnosis and prompt treatment	1.Keeping malaria well under control (Prevalence less	1. Annual Parasite Incidence (API)	1. All fever cases should have blood slides for Malarial	All levels of care

Programme	Components	Standard of care	Current Status Punjab	Minimum level of Acceptance	Level of Care
	2. Prevention of Malaria by reducing vector density in high malarious/ hyper endemic areas by selective spray and other preventive measures 3. Strengthening surveillance 4. Health communication 5. Partnership building 6. Epidemic preparedness and Malaria research	than 3/1000) by following the principles of RBM strategy so that it does not become a public health problem	reported in majority of the districts in the Province is 0.001% i.e. prevalence is 1/1000 (Malaria Control programme- DOH Punjab)	Parasite (MP) or MP by Rapid Test Kit. 2. All positive for MP should receive radical treatment for malaria and education regarding personal protection measures out side and with in house against mosquitoes. 3. Media campaigns regarding protective measures especially during high transmission season	
National Programme for the FP & PHC	1. Provision of PHC and FP services 2. Community organization 3. Maintaining family register, Birth Records, Family Planning register. 4. Growth monitoring. 5.Support for Immunization and	1. Provision of PHC and FP services through LHWs to all rural population and population of urban slums as per programme standards.	1. Population coverage 65% (Rural 70% Urban 30%)	1. Population coverage 80% (Rural 100% and Urban 30%)	Community

Programme	Components	Standard of care	Current Status Punjab	Minimum level of Acceptance	Level of Care
	other health promotional activities				
Prime Minister's Programme for Prevention and Control of Hepatitis	1. Surveillance 2. Establishment of safe Blood Transfusion services 3. Establishment of practices of safe injections 4. Prevention and control of Hepatitis A and E viral infections 5. Behavior Change Communication 6. Capacity building 7. Vaccination for high risk population 8. Diagnosis, treatment and counseling for Hepatitis B,C 9. Programme management and Technical Assistance, Operational Research	1. Ensuring the provision of services as per programme's components	1. Prevalence of Hepatitis B 3-4% 2. Prevalence of Hepatitis C 5-6 % (Ministry of Health, Government of Pakistan)	1. Behavior Change Communication (BCC) through Media (Electronic and Print) regular campaigns and Inter Personal Communication (IPC) 2. 100% screening of Blood and its products in public sector 3. Ensuring (100%) use of disposable syringes in all public health facilities 4. Vaccination for Hepatitis B of all high risk groups attending public sector facilities. 5. Vaccination for Hepatitis B of all health care providers. 6.All public sector	1. All levels of care 2.Investigation and treatment facilities for Hepatitis B, C at DHQHs

Programme	Components	Standard of care	Current Status Punjab	Minimum level of Acceptance	Level of Care
	10. Infectious waste management 11. Continued enhancement & strengthening of Programme			facilities should ensure the implementation of programme guidelines regarding segregation, collection and disposal of infectious hospital waste 7. Diagnostic and treatment facilities (Sentinel Sites) to the public for Viral Hepatitis Infections should be provided at all DHQHs	
School Health Services/ Programme	1. Screening of the school children for eyesight, speech, hearing impairment, skin diseases, anemia, epilepsy, de-worming congenital defects and dental hygiene. 2. Treatment, referral	1. All school going children should have one comprehensive health examination at school entry then every four yearly and annually medical	------	1. School Health Services[72] in all the public sector schools	Community /Schools

[72] Initially School Health Program may be started in Primary Schools of public sector only. Later on may be expanded up to level of High schools and involve private sector as well.

Programme	Components	Standard of care	Current Status Punjab	Minimum level of Acceptance	Level of Care
	and follow up 3. Educating children about preventable diseases, importance of nutrition, healthy lifestyle behaviours and other public health issues. 4.Exercise and recreation 5. Community awareness through Medical Officer and school children. 6. Sanitation and Hygiene education. 7. Maintaining record of all above activities	examination by health care providers. 3. Routine inspection by trained school teachers			
National Programme for Prevention and Control of Blindness	1. Programme priority areas: Cataract, Trachoma, Childhood Blindness, Corneal diseases, Glaucoma,	1. Every citizen of province especially children and above 45 years of age should have a thorough	1. Prevalence of Blindness- Pakistan 1.4 million (or 0.9%) 2. Prevalence of Blindness- Punjab 0.9 million - MOH	1.Capacity building and trainings for eye health of all cadres (at all levels) right from community out reach workers to District	All levels of care

Programme	Components	Standard of care	Current Status Punjab	Minimum level of Acceptance	Level of Care
	Refractive errors, Diabetes and age related macular degeneration 2. Human Resource Development 3. Effective management and advocacy 4. Research and public private partnership 5. Continuous Medical education	eye/vision check up by a trained personnel 2. Those found to have any eye problem should receive treatment and follow up at appropriate level of care		Ophthalmologists 2. Up gradation of eye departments of all THQHs and DHQHs 3. Eye health awareness campaigns at all levels 3. Free eye camps; at least two per annum at each BHU level 4. Eye health as integral part of school health programmes for public sector 5. Developing effective partnership with private sector especially general practitioners in matters of eye health	

Preventive Services

Communicable Diseases Control

Communicable diseases still account for 38 percent of the total burden of disease in Pakistan. The main ones, in terms of their disease burden, include diarrhoeal diseases (12.5 percent of total BOD), respiratory infections (8 percent of BOD), tuberculosis (5 percent of BOD), the childhood cluster of immunizable diseases (measles, pertussis, poliomyelitis, diphtheria, tetanus; 6.7 percent of BOD), and sexually transmitted diseases (2.2 percent of BOD). Diarrhoeal diseases, respiratory infections, and the childhood cluster of immunizable diseases, take their greatest toll from young children (under five years of age). Tuberculosis affects both children and adults.

Integrated Management of Childhood Illness (IMCI) approach was piloted in a few Districts of Pakistan and has been proved to be a cost effective strategy. This could be scaled up in the whole province of the Punjab.

The government should adopt a very proactive stance on preventing and treating communicable diseases. An important part of this effort should be health education together with public health measures. Government also should seek actively to identify and treat those already affected by communicable disease, and to maintain high levels of immunization coverage on a sustained basis. Government's health staff should take advantage of all available opportunities. For instance, when a mother brings her sick child to an outpatient facility for treatment, the staff should seize the opportunity to find out whether the child has been fully immunized.

Presently only 33% of the natal care is being provided by a skilled birth attendant. 15% of the pregnant women suffer from pregnancy related complications and only 5% of these reach a health facility (UNFPA: CPA Report 2000). Therefore, RHCs should be equipped to provide Basic EmONC and comprehensive EmONC services should be provided at THQ and DHQ hospitals.

Most interventions to address communicable diseases, and maternal and child services, would be provided most cost-

effectively at the lower levels of the health system (in the household themselves, in the communities, and at first-level health care facilities). However, reliable referral services are also needed to handle emergencies and more serious cases. For most people in the Punjab, the first level of referral is Tehsil and District Headquarters hospitals.

Immunization

Immunization is carried out under Expanded Programme of Immunization which is a WHO and UNICEF assisted programme. The objective of the Expanded Programme of Immunization (EPI) is to immunize children against vaccine preventable childhood diseases and women against neonatal tetanus. Immunization is done at the health facilities, outreach sites and through mobile teams to provide immunization services for children against Measles, Diphtheria, Tetanus, Polio, Tuberculosis, Pertussis, and Hepatitis-B. In addition to this, mothers of child bearing age receive 5 doses of TT or 2 doses during pregnancy. The current overall coverage in Punjab as per EPI CES for children 12 to 23 months was 77.0% and for mothers against Tetanus, it was 63% respectively[73].

Immunization coverage in Pakistan has improved in recent yeas but remains below the national targets. The programmatic aspects are fully decentralized to the District Governments for reaching the target population with a well-defined package of immunization services. A strategy to expand coverage through private health sector has not yet taken hold.

Maternal and Child Health Services (Including Family Planning)

Maternal and peri-natal conditions account for about 12 percent of the total BOD. This large disease burden is due to several causes. First presently, in the Punjab only 44% of the ante-natal care is being provided by a skilled birth attendant and only about 33% percent of women are assisted by an appropriately trained provider during delivery. Secondly, one-third of births occur less than two years apart, which doubles the mortality risk of newborns as compared to a more normal spacing. Third, about one-third of pregnant women are underweight, which is

[73] EPI Coverage Evaluation Survey 2006, EPI Cell, Islamabad

correlated with low birth weight – a risk factor for the newborn. Basic new born care should also be provided at all levels and comprehensive EMonC should be available at THQ and DHQ hospitals.

The above factors explaining poor reproductive health in Pakistan are in turn largely explained by poor consumer education. There is a massive information deficit concerning reproductive health, and the consequence has been the weak demand for family planning services for spacing (although this is changing) and for pre- and post-natal and delivery services by qualified personnel. A second explanation for poor reproductive health in many rural areas is prohibition placed on women seeking care from male providers, in a situation where qualified female providers are often not within reach.

The information deficit and restrictions on women justify government interventions in the reproductive health area. In this intervention, government must also make reliable services available, especially in rural areas, where qualified private providers are generally not present. In addition to front-line services provided by community health workers and staff of first level care facilities, referral services for serious cases (e.g., obstetric emergencies) should be made available at all Tehsil and District Headquarters hospitals.

Prevention and management of STIs and RTIs

Stigma associated with sex and STIs/RTIs is a major hindrance to prevention efforts and early treatment. Therefore, in order to understand STIs, it is important to take into account social, economic, cultural and other factors that pave the way for the infected organism to enter the human body. Treatment of the infection would cure a single episode of STI, but simultaneously addressing other determinants of STIs empowers the community to lessen the chances of getting infected. STIs are predominantly linked to poverty. Currently there is not enough information available on STIs and on their prevention. There is also a requirement for provision of information and treatment of patients at all levels, according to WHO protocols of Syndromic Case Management.

Major Micronutrient Deficiencies

Current status shows that there is 9.9% and 3.0% deficiency of Vitamin A among mothers and children under five respectively. Iodine deficiency among mothers is 21%, and among school age children 6.6%, Iron deficiency among children below 5 years is 64% and mothers of under 5 years of age is 45%. Currently there are programmes such as fortification of salt for Iodine, vegetable oils for Vitamins A & D, wheat for Iron and folic acid that can reduce these deficiencies at both national and provincial level. There is requirement of developing and launching media campaigns that would bring awareness to the population at large.

Promotive Services

Health Education and Promotion

Many of the health problems in Pakistan and Punjab are the result of very poor consumer education. Health education is a classic example of a public good; the government must take responsibility for it and fund it. Some of the most important types of health education needed in Pakistan are as follows:

(a) Creation of greater awareness of, and demand for: (i) immunization of infants and tetanus toxoid vaccination for women of reproductive age; (ii) pre- and post-natal checkup and deliveries by trained health care providers; (iii) the health benefits of proper spacing of children through family planning; and (iv) good nutrition practices, not only for pregnant women and young children, but also for adults (so as to prevent cardiovascular disease)

(b) Basic hygienic practices to prevent various types of communicable diseases (personal hygiene, proper cleaning of kitchen utensils, boiled water, proper disposal of human waste, etc)

(c) Education about HIV/AIDS and other sexually transmitted diseases and their prevention

(d) Anti-smoking campaigns, to lower the incidence of cardiovascular diseases and other diseases associated with smoking

(e) Education of people as health consumers to enable them to develop a better understanding of service quality. Consumers should be educated as to what they should expect and demand from a health care provider, public or private. They should also be educated to be able to distinguish among various types of health care providers, and especially to create awareness about the dangers of seeking care from untrained providers and quacks.

An important point to note is that there is potentially a great deal of synergy between general education levels and specific health education efforts. The efficacy of health education is likely to rise as education levels rise. Nevertheless, health education efforts can have a significant effect even under present low levels of general education. For example, levels of immunization in Pakistan and Punjab have risen in the past when information, education and communication activities related to the immunization programme were stepped up. Another example of a successful and recent (information, education and communications) campaign in Pakistan is the campaign associated with the Green Star Network of private family planning clinics.

Curative Services

Prevention and Treatment of Non Communicable Diseases

Cardiovascular diseases account for another 10 percent of the total BOD. Other important problems are Diabetes Mellitus, cardiovascular diseases, Rheumatoid Arthritis, and different causes of blindness, Obesity, mental and conditions associated with aging (geriatric problems). These diseases are less easily treatable; the most promising approach would be health education campaigns to prevent their onset and promoting healthy life style behaviours. Anti-smoking campaigns and nutrition education to promote a healthier diet would be the main types of health education aimed at preventing cardiovascular diseases.

Also important are injuries, which account for about 11 percent of the total BOD. Their incidence could be reduced through public education programmes on accident prevention, better

work safety requirements, better automobile safety requirements, and other similar preventive measures.

Emergency Services

Timely availability of emergency services and critical care can prevent and reduce number of deaths. Comprehensive emergency services should be available at RHC and above. BHUs should have a proper referral and transport system to carry patients to the higher facility. There is a need to increase capacity and to develop emergency services supporting critically ill patients throughout RHC and higher health care facility. Comprehensive information and data collection is required to support emergency services unit.

Strengthening of Emergency Services at SHC and SHC like Tertiary care hospitals is needed; in terms of physical infrastructure, human resource deployment and provision of drugs and supplies.

Dental Care

Oral health is very important and is a crucial aspect of maintaining general health. Problems in the mouth may be the first symptom of diseases like HIV infection and can also signify clinical progression. Open sores and exposed tissue is a potential entrance for infections into the body and proper dental care can reduce the presence of bacteria. Regular dental visits allow for early identification of conditions and infections. This allows for early treatment of these issues before they develop into serious problems. Specialist dental care both medical and surgical should be provided at RHC and above. THQ and DHQ Hospitals should be well equipped to deal with dental emergencies and surgeries.

Medical and Surgical Care (Out Patient Services and In Patient Services)

Basic medical and surgical care will be available at BHU and RHC. Specialist medical and surgical care and advice for proposed specialties will be available at THQ and DHQ hospitals.

Diagnostic Services

Basic diagnostic services that include Routine Blood and Urine examination, Malarial Parasite, X-ray, and Ultrasound should be provided at BHU and RHC. Advance services including sophisticated tests, Ultrasound, Gastroscopy, and Endoscopy will be provided at THQ and DHQ levels and CT scan at DHQHs only.

Rehabilitative Services

Rehabilitative services, when offered timely and appropriately, can help people, with disabilities, to get gainfully employed and do away with reliance on others. This includes meeting the physical, psychosocial, emotional and spiritual needs of patients and their families while incorporating the nursing and rehabilitative processes. Such Services should be provided to all patients in both inpatient and outpatient settings at all levels of care.

The importance of Rehabilitative Services should not be under emphasized. These Services are part and parcel of any type of treatment and most of the times are indistinguishable as separate entities. It should be kept in mind that patients are receiving some type of rehabilitation during treatment or interaction with health care providers, as for example while receiving treatment for typhoid fever he/she is also being rehabilitated psychologically/nutritionally. Putting this in another way, it goes without saying that health care providers must avail all opportunities to provide right type of the rehabilitative services according to prevailing circumstances and level of care.

6.1.1 **Health Care Providers' Obligations** (Towards Provision of Care)

a. Treating patients with dignity, respect, courtesy and privacy. Health care is provided regardless of race, religion, sex, origin, age, lifestyle, or illness
b. Greeting patients by name and explaining the policies, routines, and facilities of Health Services
c. Introducing/ presenting themselves with name and designation

d. Remaining professionally updated through continued medical education, experience and training, to carry out care plans for the patients under one's care
e. Providing patients with necessary health care education and/or counseling so that they will understand and be informed of the plan for their care, including an explanation of procedures, medications and treatments ordered
f. Allow patients to have physical access if physically or visually impaired so to have effective communication with staff regardless of impairment
g. Attending patients on time as per given appointments in order to minimize waiting time
h. Health facility timings must be strictly observed
i. All relevant information should be properly recorded
j. Prescribing appropriate drugs and in accordance with National Management Guidelines
k. To guard patient's secrets, records, maintain confidentiality and allow disclosure only when required by law or in the interest of health care of patient
l. Providing patients complete information concerning their diagnosis, treatment, and prognosis. When it is medically inadvisable to give such information to a client, the information is provided to a person designated by the client or to a legally authorized person
m. Providing patients an opportunity to discuss their problems and to participate, along with their family, in their individual health care plan and address any questions or problems about their medical care
n. To inform patients of their right to change health care providers
o. To honour patient's refusal to any treatment that is not understood or not wanted
p. Ensuring information is available to patients and staff concerning:
    i. Patient's rights listed above
    ii. Patient's conduct and responsibilities
    iii. Services available
    iv. Provision of care hour after-hour
    v. Fee for services
    vi. Patient's right to refuse to participate in

experimental research

vii. Methods for expressing grievances and suggestions to the organization

q. Gaining confidence that patient considers the health Services professional to be his / her advocate

r. Making the nurse / trained paramedical staff responsible for informing the Physician or other health care provider about changes in patient's condition

s. Providing the patients with basic nursing care including concern for personal hygiene and safety, nutrition, activity, rest and comfort according to their needs

t. Being equitable in providing efficient healthcare to all patients under his/her care

u. Provide reasonable consultation and examination time to understand the patient/relatives' concerns and address to best level of their satisfaction. (A reasonable time in our context should not be less than ten minutes)

v. Knowing one's limits while managing patients and refer to other expert in the field or to higher level facility with proper medical notes

w. Saving life and limb as far as possible by utilizing one's best abilities, learned skills and clinical acumen

x. Female patients are not to be examined by a male doctor or conducted by a male technician in isolation. For any such requirement presence of another female is mandatory. (*So if a Staff Nurse, FMT or Aya is not available then another female patient or a female relative should be requested to remain present during any such technical conduct)*

y. Always consider that patient's demand / complaint is correct

z. Try to resolve patient's problem / complaint as quickly as is possible since patient's needs are always urgent and non deferrable.

6.1.2 Patients' Rights[74]

a. To be treated with dignity, respect, courtesy and privacy. Health care is a basic human right and must be given regardless of race, religion, sex, national origin, age, lifestyle, or illness

[74] Summary of the patients right must be displayed on prominent places in all the facilities

b. To be greeted by name and to receive information on health services, the routines, policies, and facilities
c. To be able to identify care providers with their name and designation
d. Health care to be provided by qualified and experienced health care professionals
e. Receiving necessary health care education and/or counseling enabling to understand and be informed of the plan for their care, including an explanation of procedures, medications and treatments ordered
f. To have physical access, if physically or visually impaired, to the staff and to have effective communication with staff regardless of impairment
g. To receive consultation/treatment on appointment time or on his turn if appointment has not been taken
h. Patient's disclosures and records are treated confidentially. Patients are given the opportunity to approve or refuse release of such information except when required by law
i. To be provided with complete information concerning their diagnosis, treatment, and prognosis. When it is medically inadvisable to give such information to a patient, the information is provided to a person designated by the patient or to a legally authorized person
j. Refuse any treatment that is not understood
k. To have an opportunity to discuss with the health care provider their health problems/health needs and to participate, along with their family, in their individual health care plan and address any questions or problems about their medical care
l. To be informed of their right to change health care providers.
m. Advertising regarding competence and capabilities of Health Services staff should not be misleading to patients
n. To be provided information about:

viii. Patient's rights listed above
ix. Patient's conduct and responsibilities
x. Services available
xi. Provision of continuous hour after-hour care.
xii. Fee for services
xiii. Patient's right to refuse to participate in experimental research
xiv. Methods for expressing grievances and suggestions to the

organization

o. To expect the health Services professional to be your advocate
p. To expect the staff nurse to be responsible for informing the health services physician or other health care provider of changes in their condition
q. To receive basic nursing care including concern for personal hygiene and safety, nutrition, activity, rest and comfort according to their needs
r. To have access to all health care facilities / services when in emergency

6.1.3 Patients' Obligations

a. Provide health care provider full information about illness or health problem to allow proper evaluation and treatment
b. Ask sufficient questions to ensure an understanding of illness or health problem
c. Health facility timings must be strictly observed
d. Follow provider's recommendations for continuing care including medication and follow up evaluations
e. Show courtesy and respect to health care personnel and to patients
f. Not to indulge in any thing which leads to discomfort for other patients
g. Never lend personal identification to others for use to obtain health care when entitled for free health care through some organization
h. If necessary, cancel or reschedule an appointment as far in advance as possible, so that the time may be given to someone else
i. Promptly fulfill financial obligations to Health Services
j. Never give medication prescribed to others
k. Communicate with health care provider if *your* condition worsens or does not follow the expected course
l. Never give false information to health care provider

6.2. Physical Standards

Situation analysis revealed that expansion in infrastructure is required to meet the existing and future needs, and to meet the MDGs. Even looking at the current practices of hospital beds per population of the countries of same socioeconomic status,

number of beds in public sector of Punjab seems quite insufficient.

Criteria/Standard for Hospital Beds: One bed for a population of two thousand.

Rationale

There is no hard and fast rule for determining the number of beds for a population. It varies from country to country and across the country. It depends upon a number of factors as for example health needs of the population, socioeconomic status, share of private sector and availability of beds in both public and private sectors.

The standard laid down for hospital beds is backed by the contemplation of above factors, WHO and World Bank recommendation (minimum) of one bed for a population of 1000 to cater to the Services-Package and consensus built in the proposal sharing workshops.

In connection with the distribution of hospital beds, it is laid down that at RHCs the bed strength remains the same and more beds are to be placed/concentrated in the THQHs. However, in distribution of beds, the DHQHs should not be ignored and given due weightage to properly discharge their functions /deliver services as "secondary referral level".

The emphasis to place more hospital beds at THQHs could be viewed as a strategic shift considering location, accessibility, equity issues and moving towards the concept of Tehsils as 'Health Districts'.

The distribution of allocated beds within THQHs and DHQHs could be according to specific BOD. The number of proposed beds could be attained in phased manner.

Bed Space

New proposed yardstick for space per bed for THQH and DHQH is 500 sq. ft

Rationale

Hospital bed space is determined by total covered area of hospital divided by number of hospital beds. The existing space per bed (250-300 sq. ft) is highly insufficient to cater to the bedside and other necessary requirements. Enhancing space per bed will not only cater to the bed side requirements but also tackle the needs for process owners (all involved in the provision of health care) i.e. administrative block, rooms for doctors/other care providers, examination rooms, stores, mortuary, cold rooms, waiting area and sitting arrangements etc.

Equipment Lists

It is proposed that firstly, present equipment lists for all levels should be standardized and secondly, a mechanism for periodic revision (every four yearly) should be devised

Equipment Maintenance

Manufacturer guidelines must strictly be followed. A Biomedical Department should be established at each District level for repair and maintenance of the equipments.

Existing standards for layout of facility infrastructure are adequate and must be complied with strictly; however adequate repair and maintenance allocations must be provided.

6.3. Human Resource

Human resource is a critical factor in long term planning, implementation and sustaining of health care services. It is the adequacy and appropriateness of the Human Resource that is instrumental in the provision of quality health care. A standard human resource policy which must be home grown and responsive to health needs of the province is urgently needed. Human Resource policy should address vital issues of:

- Human Resource Planning
- Human Resource Sanctioning and Deployment
- Human Resource Development

Human Resource Planning

This component of policy relates to the present and future work force requirement in the health sector. It is need of the hour to look into at this point in time precisely, the number and type of the health care providers for the province. This, in turn, will provide rationale to Government investments in human resource production.

Human Resource Sanctioning and Deployment

The main objective is to review and establish new standards based on a reasonable rationale which could be used for sanction and deployment of the human resource in the devolved health public sector in the Punjab. It is really difficult to spell out exactly the standards regarding Human Resource sanctioning and deployment for the health care as it depends on many factors like availability of human resource, affordability in terms of public funds and health needs of the population.

During the development of the standards for human resource, in addition to considering above factors, help and insights were sought from reputed private hospitals, Armed Forces hospitals and international practices regarding human resource sanctioning and deployment.

The minimum human resource standards are a compromise between health needs, human resource availability and affordability. Human Resource-Package for PHC is based on delivery of the Services-Package; while for SHC is based on hospital beds, category of the hospital and the Services-Package.

Table 6.2 –Human Resource for BHU

Sr. no.	Staff / Categories	Staff Strength		
		Existing	Proposed	Difference
A	**Medical staff**			
1	MO / WMO	1	1	-
	Sub-total	1	1	-
B	**Paramedics**			-
1	School Health and Nutrition Supervisor	1	1	-
2	Medical Assistant / Health Technician	1	1	-
3	LHV	1	2	1
4	Dispenser	1	1	-
5	Midwife	2	3	1
	Sub-total	6	8	2
C	**Support staff**			-
1	Computer Operator	1	1	-
2	Sanitary Inspector	1	1	-
3	Naib Qasid	1	1	-
4	Chowkidar	1	1	-
5	Sanitary Worker (M/F)	1	1	-
	Sub-total	5	5	-
	Grand total	12	14	2

Table 6.3 –Human Resource for RHC

Sr. no.	Staff / Categories	Staff Strength		
		Existing	Proposed	Difference
A	**Manager**			
	Senior Medical Officer I/c	1	1	-
	Sub-total	1	1	-
B	**Medical staff**			-
1	MO	2	3	1
2	WMO	1	2	1
3	Dental Surgeon	1	1	-
	Sub-total	4	6	2
C	**Paramedics**			-
1	School Health and Nutrition Supervisor	-	-	-
2	Medical Assistant / Health Technician	-	-	-
3	LHV	2	3	1
4	Dispenser	6	6	-
5	Midwife	6	6	-

Sr. no.	Staff / Categories	Staff Strength		
		Existing	Proposed	Difference
6	Homeo-doctor	1	1	-
7	Dental Technician	1	1	-
8	Laboratory Technician	1	2	1
9	Hakim / Tabeeb	1	1	-
10	Dawakob	1	1	-
11	Dawasaz	1	1	-
12	Homeo-Dispenser	1	1	-
13	Dresser	1	1	-
	Sub-total	22	24	2
D	**Nursing staff**			-
1	Charge Nurse (indoor)*	6	10	4
	Sub-total	6	10	4
E	**Support staff**			-
1	Computer Operator	-	-	-
2	Sanitary Inspector	-	-	-
3	Naib Qasid	3	4	1
4	Chowkidar	2	2	-
5	Sanitary Worker (M/F)	4	6	2
6	Store Keeper	1	1	-
7	Senior Clerk	1	1	-
8	Driver	2	2	-
9	Tube well Operator	1	1	-
10	Ward Servant (M/F)	2	4	2
11	Water Carrier	1	1	-
12	Mali	2	2	-
13	Accountant	1	1	-
14	Operation Theater Assistant	1	1	-
15	X-ray Attendant	1	2	1
16	Laboratory Assistant	1	2	1
	Sub-total	23	30	7
	Grand total	56	71	15

Table 6.4 –Human Resource Standards[75] for THQH and DHQH

Sr. no.	Staff Category	Criteria
Management Staff		
1.	Medical Superintendent	1 for all THQ and DHQ Hospitals
2.	Additional Medical Superintendent	1 for Category A THQ and all DHQ hospitals
3.	Deputy Medical Superintendent	1 for Category C & B THQ Hospitals and 2 for Category A THQH and 4 for all DHQ Hospitals
Specialists		
4.	Physician*	• 1 for Category C & B THQHs, 2 for Category A THQH • 2 for Category C & B DHQHs and 3 for Category A DHQH
5.	Surgeon*	• 2 for Category C & B THQHs, 3 for Category A THQH (may be more depending upon work load) • 3 for all DHQHs and may be more as per work load
6.	Gynaecologist	• 2 for Category C & B THQHs, 3 for Category A THQH (may be more depending upon work load) • 3 for all DHQHs and may be more as per work load
7.	Paediatrician	• 2 for Category C & B THQHs, 3 for Category A THQH (may be more depending upon work load) • 3 for all DHQHs and number may be more for Category A & B DHQHs as per work load
8.	Anesthetist	• 3 for Category C & B THQHs, 4 for Category A THQH and Category C DHQH (may be more depending upon work load) • 5 for Category B & A DHQHs and may be more as per work load

[75] Human Resource Standards are for critical categories and criteria for categories not included remain unchanged.

Sr. no.	Staff Category	Criteria
9.	Ophthalmologist	1 for Category C & B THQHs, 2 for Category A THQH and all DHQHs (for DHQHs may be more as per work load)
10.	ENT Specialist	1 for Category C & B THQHs, 2 for Category A THQH and all DHQHs (for DHQHs may be more as per work load)
11.	Pathologist	1 for Category C & B THQHs, 2 for Category A THQH and all DHQHs (for DHQHs may be more as per work load)
12.	Radiologist	1 for Category C & B THQHs, 2 for Category A THQH and all DHQHs (for DHQHs may be more as per work load)
13.	Orthopedic Surgeon	1 for all THQHs and 1 for all DHQHs (for DHQHs may be more as per work load)
14.	Clinical Psychologist	1 per Category A THQH and all DHQHs
15.	Emergency Specialist	1 for all THQHs and 2 for all DHQHs
16.	Trauma Surgeon	1 for all THQHs and 2 for all DHQHs
17.	Forensic Expert**	2 for all THQHs and 3 for all DHQHs
18.	Urologist	1 for Category A THQH and 2 for all DHQHs
19.	Cardiologist	1 for Category A THQH and all DHQHs
20.	Neurosurgeon	1 for Category A THQH and all DHQHs
21.	Psychiatrist	1 for Category A THQH and all DHQHs
22.	T.B. & Chest Specialist	1 for Category A THQH and all DHQHs
23.	Dermatologist	1 for Category A THQH and all DHQHs
24.	Pediatrics Surgeon	1 for Category A THQH and all DHQHs
25.	Neurologist	1 for Category A THQH and all DHQHs
26.	Epidemiologist	1 for the District
Medical Staff		
27.	Medial Officers (MOs)	1 per 12 hospital beds/ shift; Women Medical Officers (WMOs) 40% of total Medical Officers (MOs)
28.	Number of posts of PMOs, APMOs, SMOs	As per 'Four tier structure' (MO 50%, SMO 34%, APMO 15%, PMO 1%
29.	EMOs	1 per shift for THQH + 1reliever and 2 per shift for DHQH +2 relievers. EMOs should not be assigned any other duty.

Sr. no.	Staff Category	Criteria
30.	WMOs for Labour room	1 per shift for THQH + 1reliever and 2 per shift for DHQH + 1 reliever
31.	MOs (Intensive Care)	1 per 4 beds for ICU, CCU (1 per shift + 1reliver)
32.	Blood Transfusion Officers (BTOs)	1 per THQH, 2 per DHQH
Dental Surgeon		
33.	Dental Surgeon***	1 for all RHCs, 2 for Category C&B THQHs, 3 for Category A THQHs and Category C DHQHs and 4 for Category B & A DHQHs
Nursing Staff		
34.	Charge Nurse	• 1 per 8 hospital beds per shift • 1 per 2 beds for ICU, CCU 8 Nurses per 4 beds (2per shift + 2 relievers)
35.	Head Nurse	1 per 10 charge nurses per shift
36.	Nursing Superintendent	1 for Category A THQH and all DHQHs
37.	Deputy Nursing Superintendent	1 for all THQHs and all DHQHs
38.	Nursing Instructor / Tutor	1 for all THQHs and 2 for all DHQHs
Non medical Specialist		
39.	Budget & Accounts Officer	1 for Category A THQHs and all DHQHs
40.	Accountant	1 for all THQHs and all DHQHs
41.	Social Welfare Officer	1per 250 beds
42.	Pharmacist	1 for 250 beds
43.	Health Education Officer	1 per 500 beds
44.	Health and Nutrition Supervisor	2 for all THQHs and 4 for all DHQHs
45.	Speech Therapist	1 for Category A THQH and all DHQHs
46.	Physiotherapist	1 per DHQH. THQHs with more than100 beds should have a post of Physiotherapist
47.	Statistical specialist	1 for the district

Sr. no.	Staff Category	Criteria
48.	Biomedical Engineer	1 for 500 beds or at least 1 for district
Para medical staff		
49.	Radiographer	3 THQH and 6 DHQH. 2 Radiographers for RHC(round the clock working) or at least 1Radiographer and 1 Dark room Assistant
50.	Dental Technician	1per Dental chair
51.	Lab Technician	2 morning +1 each evening & night+1 reliever for THQH and DHQH. At DHQH for morning 3 Lab Technician
52.	Lab Technician for Blood Transfusion Services	2 for THQHs and 4 DHQHs
53.	Lab Assistant	2 morning +1 each evening & night+1 reliever for THQH and DHQH. At DHQH for morning 3 Lab Assistant
54.	Dispenser	7:250 beds (Emergency 4 (3+1), OPD dispensary 2, Medicine store 1), Max 20
55.	Eye Refractionist	1 THQH, 1 DHQH
56.	Ophthalmic Technician	2 THQH, 4 DHQH
57.	Biomedical Tech / Bio Med Tech	1THQH, 1DHQH.
58.	ECG Technician	2 THQH, 4 DHQH
59.	Operation Theatre (OTT) Technician	3THQH, 6 DHQH
60.	Lady Health Visitor	8 for all THQHs and 11 for all DHQHs
61.	Dresser	8 for Category C & B THQHs and 36 (3+1 per surgical specialty) for Category A THQHs and all DHQHs
62.	Mid wife	4 (3+1) for all THQHs and 8 (6+2) for all DHQHs
Support staff		
63.	Store keeper	2 THQH (1 for Medical store and 1 for general store), 2 DHQH (1 for Medical store and 1 for general store) and 2 assistants. 1 store keeper for RHC
64.	Computer Operator	2 for all THQHs and 4 for all DHQHs
65.	Naib Qasid	4 for all THQHs and 10 for all DHQHs
66.	Chowkidar	5 for all THQHs and 8 for all DHQHs

Sr. no.	Staff Category	Criteria
67.	Senior Clerk	1 for all THQHs and DHQHs
68.	Driver	3 per ambulance and 1 per office vehicle
69.	Water Carrier	2 for all THQHs and 4 for all DHQHs
70.	Cashier	1 for all THQHs and DHQHs
71.	Junior Clerk	4 for all THQHs and 8 for all DHQHs
72.	Head Clerk	1 for all THQHs and DHQHs
73.	*Baildar*	2 for all THQHs and 4 DHQHs
74.	Carpenter	1 for all THQHs and DHQHs
75.	Cook	3 for all THQHs and 6 for all DHQHs
76.	Plumber	1 for all THQHs and 2 for all DHQHs
77.	Almoner	1 for all THQHs and DHQHs
78.	Gatekeeper	3 for all THQHs and 5 for all DHQHs
79.	Dental Assistant	1 per dental chair
80.	Telephone Operator	4 for all THQHs and 7 for all DHQHs
81.	Physiotherapy Aide / Technician	1 for all THQHs and 2 for all DHQHs
82.	Stretcher Bearer	1 for each surgical specialty and emergency per shift
83.	Projectionist	1 for Category A THQHs and all DHQHs
84.	Statistical Assistant	1 per THQH/DHQH
85.	Operation Theatre Attendant (OTA)	1per functioning operation theater round the clock and 1 for RHC
86.	Sanitary Inspector	1 per 250 beds, Max 4
87.	Lab Attendant	3 THQH and 4 DHQH
88.	Gardner	One per acre green area
89.	Sanitary Workers	2 per 24 beds in the morning and 1 per 24 beds in the evening and night + 1 reliever.
90.	Ward Servants (M/F)/Ward Cleaners	2 per 24 beds in the morning and 1per 24 beds evening and night + 1 reliever
91.	Electrician	2 THQH, 3DHQH (This is a minimum number)
92.	Tailor	1DHQH
93.	Dhobi/Washerman	1THQH, 2DHQH
94.	Air Conditioner Mechanic	1THQH, 1DHQH. Minimum 1 at District.
95.	Tube Well Operator	Minimum 2 for one Tube well

* FCPS or equivalent; other specialists at THQHS may be diploma holders.
All specialties at DHQHs should be headed by FCPS or equivalent and hospitals would be teaching hospitals.
** Minimum qualification is DMJ
*** Number of posts for Dental Surgeons as per 4-tier structure

Human Resource Development (HRD)

HRD Plan is an integral part of the human resource policy. HRD Plan must envisage continuing education opportunities for all the employees, motivation and professional growth. Pre-service education[76], induction[77] and in-service training programmes[78] based on the skills and standards to cater to the services to cope with upcoming challenge of double BOD. Furthermore continuous trainings must cover managerial and health planning aspects.

Modern information technology and multimedia could be exploited at all levels to refresh the clinical skills of the health care providers.

Training

The desired result of any clinical training programme, whether pre service or in service, is that providers begin using newly acquired skills to improve patient care. The skills need to be included in the training are carefully selected and preferably be based on training need assessments. This allows the training to be much focused and thus makes the most efficient use of time required for training. A training system that supports the implementation of quality services is the result of an integrated training strategy—a strategy that addresses all sectors, cadres and levels of the healthcare system. This integrated approach helps achieve standardization and increases collaboration. In addition, it fosters a focus on clients and the services they need

[76] It is highly imperative at this point in time that we base our curricula on service delivery guidelines. Service delivery guidelines are a technical tool to implement policies. The components of service delivery guidelines are (health needs of the population defined in terms of services) scope of services, standards, protocols and procedures.

[77] Currently Induction Training is imparted for three days; however it is proposed to revise the Training Manual in the light of MSDS, SOPs, SMPs, Job Descriptions and duration of Induction training be extended to one month.

[78] In-service training should be imparted after every 3-4 years based on Technical Need Assessments. It is also emphasized that training of the support staff related to their duties especially their conduct and over all behavior with patients/clients should also form an integral part of the HRD, as it contributes a lot to the satisfaction of service users.

rather than on the category of provider or level of the healthcare system.

Human Resource Planning and Development (HRPD) Cell or Strategic Unit

A 'Human Resource Planning and development (HRPD) Cell' or Strategic Unit should be established at the provincial level. The HRPD Cell will be responsible for implementation of proposed Human Resource Policy (HRP) in its true zeal and spirit. HRPD[79] Cell will provide necessary information to Provincial Government on current and future human resource needs for all categories of staff at PHC and SHC level. Based on this information, the HRPD cell will also make recommendations to the Provincial Government on establishing new institutions/increasing current capacities and will ensure the implementation of proposed human resource standards.

This Cell will also be responsible to develop and implement a comprehensive Human Resource Development Plan for all cadres and levels of health care. It will also keep a close liaison with PHDC, IPH and DHDC for conduction of induction and in-service trainings in this regard. The Cell will also provide necessary inputs to relevant Government authorities regarding changes in existing curricula for all categories.

Data needs of the proposed Cell could be met through current HMIS/DHIS, proposed HFA Survey, Need Assessment Survey conducted by HSRP, information from PMDC, PNC and periodic need based surveys carried by the Cell.

Analysis and Evidence Cell

It is proposed that an Analysis and Evidence Cell, consisting of Epidemiologist, Public Health Specialist and Statistician to be placed at DHQ for disease surveillance, epidemiological investigation, information analysis, and evidence based planning. This Cell can be located at DHQH, DHDC or EDO-H office.

[79] Proposed HRPD Cell could be established in Department of Health (DOH); Director being in charge along with two Programme offices and support staff.

6.4. Management Information System (MIS)

Management Information System (MIS) for PHC and SHC should be capable of addressing the needs of Federal, Provincial and District Levels. The information generated by such a system should be uniform, accurate, timely, adequate and relevant. Such an information system will be able to generate useful information for informed decision making and in turn improving quality of the care.

The issues associated with present MIS and changed role of the Districts after Devolution under the PLGO, 2001, led to the thinking of establishing improved routine Health Information System (HIS) that could respond to the information needs of the Districts. Government of Pakistan (GOP), in collaboration with JICA has designed a new system named "District Health Information System" (DHIS).

This system is expected to overcome shortcomings of existing MIS regarding coverage, quality, timeliness and use of information. DHIS has been piloted in a few Districts and is being fine-tuned in the light of pilot testing. DHIS is proposed for adaptation by Government of the Punjab. A brief description of DHIS is given below.

DHIS is aimed, to provide information for management and continuous performance improvement of the District health system in the Pakistan. More specifically, the DHIS will:

a) Provide selected key information from FLCF, secondary hospitals and sub-systems such as logistics, financial, human resource and capital asset management systems for continuous improvement of the district health system's performance
b) Cater to the important routine information needs at the federal and provincial levels for policy formulation, planning and M&E of health programmes

DHIS is expected to bring about basic changes in the HMIS, by updated data set which will be more responsive to the current information needs, introduction of simplified data collection tools and clear instructions on how to use them. Expansion of coverage of information system by including the secondary level

hospitals and revision of supervisory mechanism to ensure production of high quality data for evidenced based decision making would also be made more convenient.

Moreover, the DHIS has proposed re-organization of present HIS management structure to correspond to decentralized health delivery system needs, enforcement of data processing and reporting mechanism. DHIS also includes mechanisms to facilitate use of information generated through this system and improvement in data processing and reporting software.

Components of DHIS include data collection and reporting instruments, software, Data Quality Assurance (DQA) mechanism, use of DHIS information model and DHIS training modules. DHIS training modules include training on DHIS instruments, DQA, training on Use of DHIS information and training on DHIS software.

DHIS Indicators

Overall 79 indicators have been included in the DHIS. These indicators cover:

- Overall health facility utilization (15 indicators), Preventive care (14), Curative care (34) Financial Management (3), Logistics (1) Human resources (2), Capital assets (6), Regulation (1), Information system (3)

Table 6.5 – Comparison between DHIS and HMIS

HMIS	DHIS
• 114 indicators for BHU • Outdoor and outreach • Only FLCF level • HMIS/FLCF required to capture 446 variables monthly	• 79 indicators • 43 (monthly 34 + yearly 9) indicators for BHU • Cover both outdoor and indoors, as well as outreach (vertical programmes) • FLCF and secondary levels with different instruments according to its specialization • DHIS from RHC requires to capture 140 variables monthly

Monthly reports generated through DHIS are helpful in assessing the facility's performance in relation to other facilities in the District and targets set by the District. DHIS data quality is assured by a mechanism including Lot Quality Assurance Sampling (LQAS) technique, supervisory checklists and computer program for identifying blank cells in monthly reports and late submissions.

6.5. Performance Assessment and Local Facility Plan

Currently performance assessment of staff is subjective and no system of facility performance assessment exists. There is a need to review performance assessment system of the health care providers and facility and to set criteria/standards in this regard.

The standard/criteria for assessing the performance of facility should be set, taking into consideration the MDGs, provincial and District priorities. Each facility should have a catchment area health plan, which should essentially be based on BOD, demographic aspects and health profile. Similarly objective performance criteria need to be developed for personnel in consultation with the stakeholders and their incentives should be based on performance.

Performance assessment against set criteria/standards could be done through third party Medical Audit. DHIS and other support

systems such as supervision may also prove a useful tool for comparison of health care facilities within the District, thus helping to see better performing facilities and adopting workable practices to be incorporated in low performing areas.

6.6. Supervision

Supervision is recognized as an essential element in the improvement of service delivery. Present supervision is weak due to lack of clarity in roles and non-availability of the standardized supervisory checklists at many levels of care. Defined time schedule and mechanism of feedback are deficient. Currently induction training is also lacking in areas of management and supervision, leading to lack of core competencies and skills.

A comprehensive supervision system integrated at all levels, with clear roles and responsibilities of all supervisors is proposed with following essential elements:

- Supervisory framework;
- Development/adaptation of supervisory checklists; and
- Training.

Framework for Supervision

Supervision policy needs to be developed addressing the following areas:

- Supervision should be an integral part of the policy document;
- Mandatory use of supervisory checklists by all supervisors;
- Adequate operational budget allocation for supervisory activities by the district governments.
- Institutionalization of feedback to the supervisee along with monitoring of agreed corrective actions;
- Frequency of minimum scheduled visits should be specified[80] e.g. every facility should be visited once in a quarter;

[80] Frequency of minimum visits will vary according to hierarchy of the Supervisors. It is recommended that DDOH should visit at least each facility quarterly, DOH should visit at least each facility annually and EDOH should spend 20% 0f working time on scheduled and surprise visits. Nazim and District Coordination Officer (DCO) must also visit at least one health facility on alternate month. DGHS and Secretary Health should do supervisory/technical visits as and when required. Use of checklist and follow up as proposed above is an integral part of supportive supervision. Coordinated and cross-sectoral visits of higher officials shall be of great value.

- Roles and responsibilities of all categories of supervisors need to be clearly define

Development/adaptation of Supervisory Checklist

Supervisory checklist is an essential tool to implement a successful supportive supervision system as it provides the opportunity for the supervisors to comprehend the whole service provision process without missing any aspect. It may also be shared immediately with the supervisee for giving technical feedback. It serves as a monitoring tool for agreed corrective actions and facility performance assessment. At present available supervisory checklists are fragmented and are programme focused. Comprehensive checklists need to be developed for all levels of care.

Training

To be effective, supervision must be linked to training. Both training and supervision can be considered "tools" for fostering the implementation of guidelines and attaining improved healthcare. And training of supervisors is as important as training of healthcare providers. In addition to clinical skills, supervisors need training in management, mentoring, coaching and other interpersonal skills.

6.7. Referral System

Effective referral and transport systems are required to save lives and must be in place so that patients can be referred as and when necessary. Components of such system should link into continuum of care that has well defined responsibilities at each level.

This continuum of care starts at the home and community and does not end until the patient receives the definitive care he/she needs, often in a healthcare facility. It means that appropriate care is provided not only in community and within facilities, but also between facilities during occasions of referral. Each link in the continuum of care chain has to operate efficiently and effectively in order to ensure high quality care to all those who are in need.

A comprehensive and effective referral with following essential components is proposed:

- Preparation of policy guidelines for comprehensive patient referral system in the province
- Mapping and definition of referral catchment area of health facilities
- Each tier of care must have functional written protocols that should assist providers in determining when to move a patient to the next level of care and how to stabilize him/her and ensure continuity of care until he/she reaches that level
- Defining and provision of Service packages at referring and referred facilities: Each facility should have a clinical emergency action plan. Basic emergency supplies must also be readily available at each level of care
- Defining a clear and practicable transport policy[81]: Whether or not facility has its own transport system, the facility should know how to access emergency transport to receive patients or to transfer them to the next higher level of care
- Devising feedback and follow-up mechanisms and
- Training of staff for deciding point of referral[82].

However, a detailed study to analyze above components of the referral system in the Province is being carried out under the PDSSP's T.A. component. This aims to design a comprehensive referral system so that a system coupled with implementation strategies regarding a formal and functional referral could be worked out. It could be implemented after piloting and modified after immediate feedback is acquired from the piloting phase.

[81] Community involvement in arrangement/management of vehicle is highly recommended. It may be through Sehat/Health Committees (formulation of these Committees at all levels of care is proposed), CCBs, Citizen Welfare Organizations or elected bodies/representatives. It may take any form and shape. Basic objective is to ensure availability of the vehicle a round the clock for transportation of emergencies.

[82] Trainings of health care providers may be arranged on the pattern of Rescue 1122. Trainings must address all issues related to referral as what to do on receiving emergency, when and where to refer, management during transportation etc.

6.8. Drugs and Supplies

It is proposed that the present standard lists of drugs and supplies should be revised at regular intervals, taking into account District specific BOD[83]. Following two options can be considered in this regard:

- The task of revision of lists can be accomplished at District level with the involvement of representatives from the province, District Governments, professionals from all the disciplines and levels of health care
- Other option may be to prepare comprehensive standard lists of drugs and supplies at provincial level involving stakeholders from federal, provincial, Districts and health allied organizations/departments. Districts can adopt the same.

Guidelines for operation of the effective logistic system are vital and must be prepared. These must encompass all components of the system including standardization, quantification, procurement, storing and distribution. The guidelines to ease the operation of an effective logistic system can be prepared at the District level involving all stakeholders.

Other Perspectives

Clinical Governance

Clinical Governance is a systematic approach to maintain and improve quality of patient care within the health system. At present clinical governance is proposed at THQHs and DHQHs; consisting essentially of Medical Superintendent, all specialists/consultants and other care providers with following roles and responsibilities:

- Clinical Audit
- Mortality Reviews
- Risk Management
- Hospital Waste Management
- Infection Control
- Liaison with Community and Patients Feedback

[83] In the mean time, District specific needs of the drugs could be accommodated by giving Districts a flexibility of 25% to purchase out of the bounds (local purchase) of the existing drugs lists.

- Continued Medical Education (CME) and Research
- Disaster Management

Community's Involvement/ Ownership

Community involvement in health care delivery system is aimed at making services more responsive (in terms of their needs and values) thus increasing utilization, democratic decision-making and better accountability. Current status of community involvement in the province is piecemeal and disparate. Even if recent governmental policies are encouraging in representative and meaningful public involvement, they may not increase accountability.

To make community involvement more purposeful, in general a thorough thinking is required on:

- Objectives of community involvement
- The appropriate degree and methods of public involvement at all levels of decision making in public sector in Punjab
- The balance between Community/public and expert involvement in decision making
- Mechanism to avoid clash of interests in the long run, between professionals/managers and community

In the present scenario (keeping in view the varied factors and limitations of public health sector), community involvement[84] in matters of their own health is proposed in the forms of Health Committees or Users Committees at different levels to maintain a close liaison between health care providers and communities. These Committees may play commendable role in incorporating communities' opinions/perceptions in health care planning, supervision, accountability/evaluation increasing services utilization and sustainability of the public sector health services.

[84] Community involvement may be through Health/Users Committees, elected community representatives, CCBs, CBOs and professionals. Proposed Committees will work in close liaison between the community, health facilities and outreach health workers in the District. Financing for these Committees could be arranged through using the concept of corporate social responsibility. Monitoring the performance of these Committees should be in-built and institutionalized.

Proposed Health/User committees will have the following roles/responsibilities:

- Resource mobilization and support
- Provide information and help to patients
- Incorporate community/patients perspectives into management decisions related to health services
- Address complaints of the patients
- Safety of the poor
- Quality assurance/limited accountability of the managers

Clients Satisfaction/Feedback

To assess the level of clients/patients satisfaction with services and to invite suggestions for improvement, complaint or suggestion box should be installed at prominent places in all the health care facilities. In addition, there should be telephonic contact or address of the mangers/supervisory officers allowing the patients to lodge their complaints. To assess the quality of care client/patient exit interviews and mystery client surveys could be introduced at a later stage.

Social Protection and Safety Nets for the Poor

Health care services should be available to every one as a right; no one can be denied access to these services, due to his/her inability to pay for them. Different mechanisms and approaches must be in place for provision of social protection and safety nets to the poor, ageing population and critically ill patients. In this regard general and specific (to facility) safety nets/mechanisms are proposed:

- Legislation should be made on social health insurance
- Health insurance coverage of poor/needy population (by government)
- Feasibility of using Zakat and Bait-ul-Maal funds should also be explored for provision of social protection and safety nets
- Communities should be mobilized to contribute funds for providing social protection; this awareness raising campaign can be run through proposed Health Committees and the CCBs
- Mechanism to channelize individual philanthropy

Following safety nets are proposed at facility level:

- Patients Welfare Society; representation from Health Committee and facility
- Access to Zakat and Bait-ul-Maal through Social Welfare Department employing a simple procedure.

SECTION VII

IMPLEMENTATION PLAN

7.1. Pre-Requisites

Minimum Service Delivery Standards implementation requires a number of pre-requisites and choices; these involve data needs, costing, and choices about how to deliver and pay for services.

Burden of Disease (BOD) Study

MSDS have been designed based on existing data that was available from various reliable sources. However, it is worth mentioning here that the design of MSDS has been kept flexible in order to incorporate the results of a provincial burden of disease study that the PDSSP has been mandated to undertake.

Health Facility Assessment (HFA) Survey

Health facilities were established on the basis of geographical yardstick irrespective of the population and health needs of the community/BOD. This resulted in provision of those services which were not needs-based and construction of some facilities having accessibility problems. Comprehensive mapping of the facilities' catchment areas is of prime importance for their proper utilization. In this regard each facility needs to be assessed individually in its own context.

HFA survey is being proposed to identify the gaps in comparison with the proposed standards regarding facility infrastructure, human resource and equipment. Information collected through HFA should be used to plan for up-gradation/up-dation of the facilities infrastructure, equipments, planning and sanctioning/deployment of human resource according to the Standard package. HFA will also provide information for identification of non-serviceable units and decision for their closure/ relocation may be taken accordingly.

Needs Assessment Survey conducted by PMU-HSRP can be used to have a bird's eye view and can be of great use in providing basic information.

Costing

Detailed cost estimates, to implement MSDS, SOPs in the Province of the Punjab, need to be done taking into account, the proposed Services-Package and all the necessary inputs (physical, human, information and financial) that are mandatory

to deliver these Services. It is also important to recognize that the cost estimates should reflect what it would cost to carry out the intervention effectively, reaching a much larger population than existing coverage.

Financing

Following financing options could be used either alone or in a combination:

1. Financial requirement of implementing MSDS could be from Government's own resources; or
2. Government could use its own resources and seek assistance from its development partners.
3. Another option could be public private partnership based on well-defined terms of partnership.

7.2. Strategies

Government of the Punjab may go for or adopt a number of possible strategies to implement the MSDS. Proposed strategies are:

- MSDS can be implemented in one stretch or in a phased manner
- Outsourcing
- Public Private Partnerships
- Community involvement in matters of their own health may be in the form of Sehat/Health Committees or Users Committees at different levels to maintain a close liaison between health care providers and communities. These Committees may play commendable role for incorporating communities' opinions/perceptions in health care planning, Supervision, accountability/evaluation increasing services utilization and sustainability of the public sector health services. However, terms and conditions for the Sehat Committees at all levels need to be defined clearly and worked out thoroughly
- The responsibility of implementation may be entrusted to the District Governments, with the technical backstopping and financial support by the Province

- Quality Assurance: Office of the Director General Health Services may be strengthened and entrusted the role of monitoring and evaluation and ensuring the quality of services being delivered. DGHS office may also help the Districts in the capacity building in the areas of management and quality assurance. The HSRP could be mandated to work in tandem with the DGHS Office in this connection.

7.3. Conclusion

The Government of the Punjab has launched the HSRP with high expectations. The PDSSP is supposed to provide all the important T.A-based inputs to sustain this ambitious reform agenda. It is believed that the MSDS will be the pivot around which all the significant systemic improvements and the Business Process Re-engineering (BPR) initiatives will revolve. The PDSSP intends to do this work methodically and diligently. The key to the success of this reform is the front-loaded development and implementation of the MSDS. The implementation part is going to be challenging and would require innovation and a high degree of dexterity. The piloting phase, in particular, would be of critical importance. Dissemination of there initiatives is going to be another vital aspect for which the Government intends to introduce a well planned-out strategy.

Table 7.1 - Implementation Plan Matrix

Serial No.	Description	Time Frame (Year)						Responsibility	Remarks
		1		2		3			
		6	12	18	24	30	36		
A	**Pre-Requisites**								
1	Approval of MSDS Proposal							High level planning and development committee	
2	MSDS- Project Implementation Cell							DOH-HSRP	
3	Burden of Disease Study							PDSSP – Outsource	Both studies will start simultaneously
4	Health Facility Assessment Survey							PDSSP – Outsource	
5	Costing of implementation of MSDS							PDSSP	
B	**Services Package**								
6	Development and printing of SOPs training manual							PDSSP – Outsource	
7	Development and printing of SMPs training manual							PDSSP	
8	Development and Printing of Services package manual							PDSSP	
9	Trainings on SOPs							PDSSP	
10	Trainings on SMPs							PDSSP	
11	Trainings on Services package							PDSSP	
C	**Physical Standards**								
12	Renovation of existing facilities							DOH- HSRP	
13	Up-gradation of existing facilities in accordance with proposed standards							GOPb/DOH	
14	Standardization of equipment list							DOH	
15	Provision of equipment							DOH	

Serial No.	Description	Time Frame (Year)						Responsibility	Remarks
		1		2		3			
		6	12	18	24	30	36		
D	**Human Resource**								
16	Establishment of HRPD cell							Department of health	
17	Planning of HR							HRPD Cell-DOH	
18	Sanctioning and Deployment							DOH, Finance Dept.	
19	HRD/trainings							HRPD Cell-DOH,PHDC, DHDC	
E	**Drugs and Supplies**								
20	Development of standardized lists							DOH, District Government	
21	Development and printing of guidelines for logistic system							DOH	
22	Trainings on logistic system							DOH	
F	**Supervisory System**								
23	Development of Supervisory framework							DOH, PDSSP	
24	Trainings on supervisory system							DOH, PDSSP	
G	**Performance Assessment**								
25	Development of criteria for assessment of facility performance							DOH, PDSSP	
26	Development of Job Descriptions & Performance Evaluation Criteria							PDSSP	
H	**MIS**								
27	Trainings (DHIS)							DOH,PDSSP	
I	**Referral System**								
28	Study on mapping of health facilities catchment area							DOH, PDSSP	
29	Development of referral protocols							DOH, PDSSP	

Serial No.	Description	Time Frame (Year)						Responsibility	Remarks
		1		2		3			
		6	12	18	24	30	36		
30	Provision of the services package at referring and referred facilities							DOH, PDSSP	
31	Training of the staff on referral system							DOH, PDSSP	

ANNEXURE I

Human resources for SHC and PHC Facilities

DHQ Hospital Category C	
Position	No.
Managers	4
Specialists	15
Medical Officers	64
Dental Surgeon	1
Pharmacist	1
Nursing Staff	47
Paramedics	45
Others	201
Category C 125 – 250 Beds	

DHQ Hospital Category B	
Position	No.
Managers	5
Specialists	20
Medical Officers	84
Dental Surgeon	2
Pharmacist	1
Physiotherapist	1
Nursing Staff	86
Paramedics	52
Others	201
Category B 250 – 400 Beds	

DHQ Hospital Category A	
Position	No.
Managers	5
Specialists	26
Medical Officers	104
Dental Surgeon	2
Pharmacist	1
Physiotherapist	1
Nursing Staff	136
Paramedics	70
Others	390
Category A > 400 Beds	

THQ Hospital (40 – 60 Bedded)

Position	No.
Medical Supdt	1
Specialists	10
Medical Officers	12
Nursing Staff	15
Paramedics	24
Others	51

RHC – Former/ Markaz Level

Position	**No.**
SMO I/C RHC	1
Medical Officers	2
WMO	1
Dental Surgeon	1
Nurses	6
LHV	2
Midwife	6
Paramedics	16
Others	21

Human resource for BHU

Position	**No.**
Stationed Staff:	
Medical Officer/WMO	1
School Health and Nutrition Supervisor	1
Computer Operator	1
LHV	2
Medical Assistant/MHT/FHT	1
Sanitary Inspector	1
Dispenser	1
Dai/Midwife	2
Other Support Staff	3
Out Reach Staff:	
CDC Supervisor	1
EPI Vaccinator	1
LHW of Prime Minister Programme	1