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Sindh health sector strategy 2012 – 2020

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Sindh Health Sector
Strategy 2012 – 2020

TRF
Technical Resource Facility

H RU
BRIDGING GAPS

ACRONYMS

ANC	Antenatal care
BCC	Behavior Change Communication
BISP	Benazir Income Support Program
BDN	Basic Development Needs
BHU	Basic health Unit
CDGK	City District Government Karachi
CHC	Community Health Centre
CME	Continuing Medical Education
CMWs	Community Midwifes
COPD	Chronic Obstructive Pulmonary Disease
CPSP	College of Physicians and Surgeons Pakistan
DEWS	Disease Early Warning System
DHIS	District Health Information System
DHQ	District Headquarter Hospital
DOPW	Department of Population Welfare
EDO	Executive District Officer
EmONC	Emergency Obstetric and Neonatal Services
EPHS	Essential Package of Health Service
EPI	Expanded Program of Immunization
FPCs	Family Practice Centers
GIS	Geographical Information System
GMP	Goods Manufacturing Practice
GP	General Practitioner
HIV/AIDS	Human Immunodeficiency Virus
HRDC_DFID	Human Resource Development Center _ Department for International Development
HSRU	Health Sector Reform Unit
IHP	International Humanitarian Partnership
LHW	Lady Health Worker
MDG	Millennium Development Goal
MNCH	Maternal, Neonatal & Child Health
MSDP	Minimum Health Services delivery Package
NCD	Non-Communicable Disease
NPO	Non-Profit Organizations
OOP	Out of Pocket
OPD	Out Patient Department
PDMA	Provincial Disaster Management Agency
PHC	Primary Health Care
PHDC	Provincial Health Development Center
PMA	Pakistan Medical Association
PNC	Postnatal care
PPMA	Pakistan Pharmaceutical Manufacturers Association
PPP	Public-private Partnerships
SACP	Sindh AIDS Control Program
WHO	World Health Organization

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- Inter-sectoral District Based Pilots On Nutrition And Social Development Through Collaboration With BISP, Water &Sanitation, Education And Other Sectors
- Strengthen District Health Governance For Result Based Implementation Of Services In Disadvantaged Districts
- Develop An Integrated Family Health Practice Model Of “One Stop Shop For Health And Population” In Low Income Urban Localities Involving Registering Of Households With Practitioner

- Roll Out Of Urban Adjusted Minimum Service Delivery Package Through Franchising With GPS And NPOS, And Upgrading And Standardizing Services Of Existing Urban Dispensaries
- Implementation Of Urban Adjusted Essential Health Service Package At Identified Secondary Care Centers In Public And Private Sector With Prioritized Referral Links From MSDP Centers, And Onward Linkage To Tertiary Hospitals
- Multi-Purpose Male And Female Workforce Linked To FP Practices For Community Based Health Package Targeted To Entire Household
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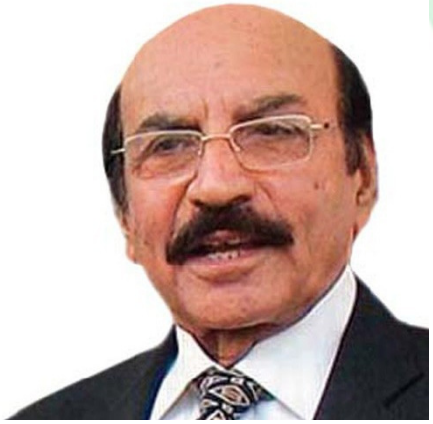
It gives me immense pleasure to know that the health department has embarked on a historical achievement of devising health sector strategy for the Province of Sindh.

Historically, Health Department has been known for its innovative approach in providing quality health care services to the people of Province of Sindh. Department of health is in the process of consistent improvement under the leadership of Provincial Health Minister Dr. Sagheer Ahmed, who has worked hard to win the trust of the people of Sindh by safeguarding their health care interests by taking commendable initiative.

Health sector strategy is one such meritorious initiative which has never been taken before. Health strategy will help

devising the road map of health care delivery for the department of health for the coming years. This document will not only provide quality control guidelines but also help prioritizing the health issues according to specific needs of the districts in the Province of Sindh. Health strategy for Sindh Province is a comprehensive document that addresses almost all the health issues presently faced by the Province along with the financial, regulatory and governance implications to provide the Health department clear and unambiguous action plan.

The endeavors of Minister Health and the whole department are indicative of serious commitment so that things move in the right direction. I congratulate Government of Sindh on this historic achievement.



Health care is the key to progress of nation. Health Department, Government of Sindh has been one of the finest providers of health care in the country as it has well established network of tertiary, secondary

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DR. ISHRATUL EBAD KHAN
Governor, Sindh

and primary health care facilities delivering quality health care not only to the Province of Sindh, but catering patients from all over Pakistan. The level of hard work we have witnessed from health department in recent times is in line with the aspirations of the masses and is duly reflected in its recent achievements.

In pursuance of the health priorities set forth by his Excellency the president Asif Ali Zardari and the Honorable Prime Minister Raja Pervaiz Ashraf under the active guidance of Provincial Health Minister Dr. Sagheer Ahmed, Department of health has stood by the will and wishes of the people of Sindh and served them with the

unabated efforts to develop and enhance the health care services in Sindh. I am very happy that through consistent efforts and endeavors, Health Department, Sindh has produce Health strategy (2012-2020) that will foretell the future health of the Province. Hard work and consistent efforts the health department and development partners in Healthcare sector have made this possible. The department has been continuously engaged in creating an enabling policy structure to strengthen the healthcare delivery mechanisms in the Province. Health strategy of Sindh would be a first step forward in devising a comprehensive health policy. During the past four years Department of health has been a vibrant force behind the changing health care infrastructure of Sindh, ensuring not only good clinical outcomes and professional standards but also by a comprehensive preventive plan to ensure the better quality of life. Strengthening preventative side would not only reduce the burden on health care facilities but also reduce the out of pocket expenditure on health care by people.

To develop Sindh into a modern Province is a dream that we all cherish and definitely Health Department has a significant role to make this dream a reality. Health strategy is an important mile stone realize that dream. Bravo on this historic effort.

SYED QAIM ALI SHAH
Chief Minister, Sindh

Healthcare in Sindh is amongst the largest sectors with bevy of highly qualified doctors in Pakistan. We have the largest and finest, both publicly and privately owned, tertiary care hospitals in Pakistan. It has shown a marked improvement over the years, but some areas are still lacking up to the mark performance.

Over the years, coming up with striking innovations has been a hall mark of the health department. Establishment of Health Sector Reforms Unit (HSRU) was one of the initiatives to provide strategic framework and technical backstopping to face the challenges by health department in post devolution scenario. Health sector strategy is the first milestone achieved by the Health sector Reforms Unit (HSRU)

within three months of its establishment. Department of health is driven by the belief that health strategy would not only enrich the stakeholders with information but would serve as guiding light towards clearly defining priorities and needs which would be translated in action plans to address the health issues faced by the Province of Sindh. Prioritizing issues would enable the stakeholders to take the ownership and provide commitment to the challenges. Subsequently, clearly defined objectives would help attracting more committed donors and will help reducing the financial gaps in execution of the action plans that will overall lead to a healthy nation.

I am very much confident that this document will be guiding light in addressing health issues particularly in the rural and urban perspective.

I hope and pray that by the help of this guiding document we could achieve Millennium Development Goal 2015 (MDG 2015).

Dr. Sagheer Ahmed
Minister Health, Sindh

There is nothing important to all of us than our health. Health department has achieved excellence through hard work devotion and commitment over the years. Innovative initiatives have been taken to make health services in Sindh as the exemplary health care delivery system in Pakistan.

It is great honor for me to be the part of the team of this strategic document. Health strategy for 8 years will open new vistas for us. After 18th amendment post devolution scenario demanded the efforts for making delivery of Healthcare services efficient and equitable to cater the need of Sindh.

The need of the hour, therefore, seems to be the development and implementation of conscious efforts aimed at innovative modes and mechanisms of healthcare governance, regulations, financing and specially monitoring and evaluation for

making commendable efforts in health. Commitment and Guidance of Health Minister Sindh, has Enabled Health Sector Reforms Unit, department of health, to envision the goal of a health strategy that provides strategic framework for strengthening services, finances, regulations, governance, monitoring and financial implications associated with it. Health Sector strategy is a remarkable mile stone achieved by the Health department. This health strategy will enable us to identify and prioritize the burning issues that need to be addressed.

health sector strategy will be translated into plans that executed to provide best health care delivery to the Province of Sindh.

I must congratulate Minister Health, Health Sector Reforms unit and Government of Sindh and all professionals for establishment of health sector strategy. I must pray and hope that this Health sector strategy will be translated into plans that executed to provide best health care delivery to the province of Sindh.

AFTAB AHMED KHATRI
Secretary Health

When Health Minister Sindh, came up with the idea of health sector strategy in the steering committee meeting of health sector reforms unit (HSRU), I was amazed by the idea and thought that it is infact, a dire need to start of the reforms by providing health strategy to the Province, a mountain that has never been climbed. A mountain, because Sindh has the vast land area and mixture of urban, rural population of different socioeconomic back grounds with different health priorities that need to addressed. It was challenging to address not only the consumer end concerns but also the management, governance, monitoring and evaluation issues that needed to be addressed by a single strategy document.

Post devolution era demanded not only to identify the health problems of the health of people of Sindh and prioritize them but also to identify and come up for the strategy for the issues face by the health department like governance, HR and monitoring and evaluation that impeded the quality health care services to the end-users. I feel proud to live in the age of health sector strategy for Sindh and specially blessed to be the part of the team achieving this milestone along with the HSRU team and health department. Health sector strategy has been developed in collaboration with the hardworking of the specialists from development partners and health department and then evolved through the rigorous brainstorming and refinement by the health department to produce an encompassing document that address the health issues of Sindh in coming five years. Health department has pondered over 4 months for the refinement of this document so as to make it legitimate and approved by the minister of Health Sindh and tried their level best to incorporate strategies to tackle each and every health issue faced by Province of Sindh.

I feel like we're in a great place right now to accomplish far more. There is a greater awareness of health issues right now within the department and outside the health department and our leadership and workforce is committed to resolve the heath issues. Health strategy for eight years (2012-2020) will strengthen our health care services as a whole.

Kiran Nauman

Chief HSRU,

Additional secretary (Dev)

Acknowledgement

The Health Sector strategy would not have been possible without the support provided by TRF, DFID and AusAid. Health Department, Sindh especially thanks to Dr.Shehla Zaidi, Dr.Shereen Narejo, Ms.Fouzia Rehman, Dr.Ghulam Haider Akhund, Dr.Nasir Idrees and Dr.Fawad Shaikh for providing Technical assistance to Health Sector Reforms Unit and Department of Health for devising this novel document.

Health department, Sindh acknowledges the hard work put in by Dr Syed Munawar Alam, Dr Shaikh Muhammad Saif ud din, Dr Jameela Anwar and Dr Nisar Ahmed Solngi (coordinators HSRU) in the making of this document.

This document is **Peer reviewed by Veronica Vargas and Cindy Carlson.**

1. BACKGROUND AND PURPOSE

INTRODUCTION

A major development in the constitutional history of Pakistan has taken place recently whereby the concurrent legislative list has been abolished. All functions related to the social sectors including health have been devolved to the federating units of Pakistan i.e. the Provinces. The Constitutional (18th Amendment) Act, 2010 was passed in the Parliament and was promulgated on April 20, 2010 The 18th amendment has provided an opportunity for provincial governments to review and close gaps in human, administrative, management and financial resources to be able to plan for the additional responsibilities. The Provinces now have an independent and enhanced role in policy-making among other important responsibilities.

As per the implementation plan, the Federal Ministry of Health has been abolished with effect from July1, 2011. The Provinces are now are responsible for providing stewardship to the health sector in addition to the earlier service delivery role. Discussion between the Provinces and Federal government has led to establishment of an Inter-Provincial Concurrent list for Health Sector which includes International Commitments, Drug Licensing, Registration and Pricing functions, Export/Import of good and services, and professional councils such as Pakistan Medical & Dental Council, Nursing Council and Pharmacy Council as Federal functions to be collectively managed at the Federal level. Important functions notably priority setting and strategy development, regulation, management of vertical programs and management of Federally funded facilities and initiatives have been agreed as provincial responsibilities.

As the administrative and fiscal space of Provinces has increased multi-fold with a simultaneously increase in their responsibilities, the need to adjust health care delivery systems, governance structures and financial allocations in the Provinces to improve health outcomes while maintaining equity, quality and efficiency in health care.

The Government of Sindh requires that a Health Sector Strategy be developed by reviewing the current situation in the health sector and establishing priorities for services to be delivered to the people in an integrated manner. The Strategy will support the Health Department to progress further with a sense of direction, purpose and urgency by prioritizing policy related interventions consistentwith availability of financial resources.

Technical support for this assignment is provided by Technical Resource Facility Islamabad, an international agency assisted by DFID and AusAID, and is part of similar assistance being extended to all Provinces in the post devolution context. Discussions have been held by TRF at Federal and Provincial levels with lead Development Partners and UN Agencies involved with the Health Sector. With one of the key outcomes of their involvement being that the alignment of future development partner investment is aligned with the Strategy to the greatest extent possible so as to minimize the transaction costs on Government of multiple reviews and reporting requirements from multiple sources.

SCOPE

The proposed strategic framework for 2012-2020 is expected to serve as an over-arching umbrella to guide the operational plans of medium and long term programs and projects. It also provides estimates of resource envelopes, for the total budgetary outlays as well as costs of specific strategies requiring assistance. The document is expected to provide strategic directions for resource mobilization from the stakeholders including the public sector, international donors, corporate sector and philanthropic organizations. In the preparation of the strategic framework care will be taken to avoid overlaps and redundancies for achieving efficiency and coordination across the various sub strategies across the sector. A menu of strategic and commensurate financing options will be presented, would range from no costs policy actions to budgetary enhancements, efficient spending of existing resources, and harnessing spending from private sector and donors. An allied monitoring and evaluation (M&E) framework will provide the Key Performance Indicators (KPIs), quantitative annual targets over 2012-2020.

The eight year strategic framework is also expected to guide the DOH in the development of its annual development plans (ADPs) and expenditure forecasting.

OVERALL PURPOSE

- The key purpose of developing the strategic framework is to identify as to what is required for health systems strengthening (HSS) in Sindh;
- Define a set of sub strategies for the major building blocks of the HSS including : service delivery; human resources; health management information; medical products, vaccines and technologies; financing; and leadership /governance/stewardship and
- Provide a strategic framework/roadmap aligned with evidence based prioritized needs identified in the situation analysis which provides a basis for detailed operational planning.

VISION: Maximizing efforts to improve health status of the people in Sindh in congruence with international and national commitments and in response to Sindh's contextual needs.

APPROACH: Action on evidence based priority needs of Sindh through joint efforts of all partners and related sectors following a result based, technically relevant, resource feasible and socially accountable approach

GUIDING PRINCIPLES

- **Provincial-demand** driven and addressing **provincial context**
- Building on appropriate **existing provincial processes** and **experience**
- Improve **equity** by maximizing benefits to disadvantaged population
- **Sectoral vision** encompassing both public and private sector
- **Inter Sectoral action** to enhance healthy public policy
- Strong element of **monitoring and accountability**
-

OBJECTIVE: To provide a strategic direction aligned with evidence based prioritized needs which will in turn be a basis for detailed operational planning.

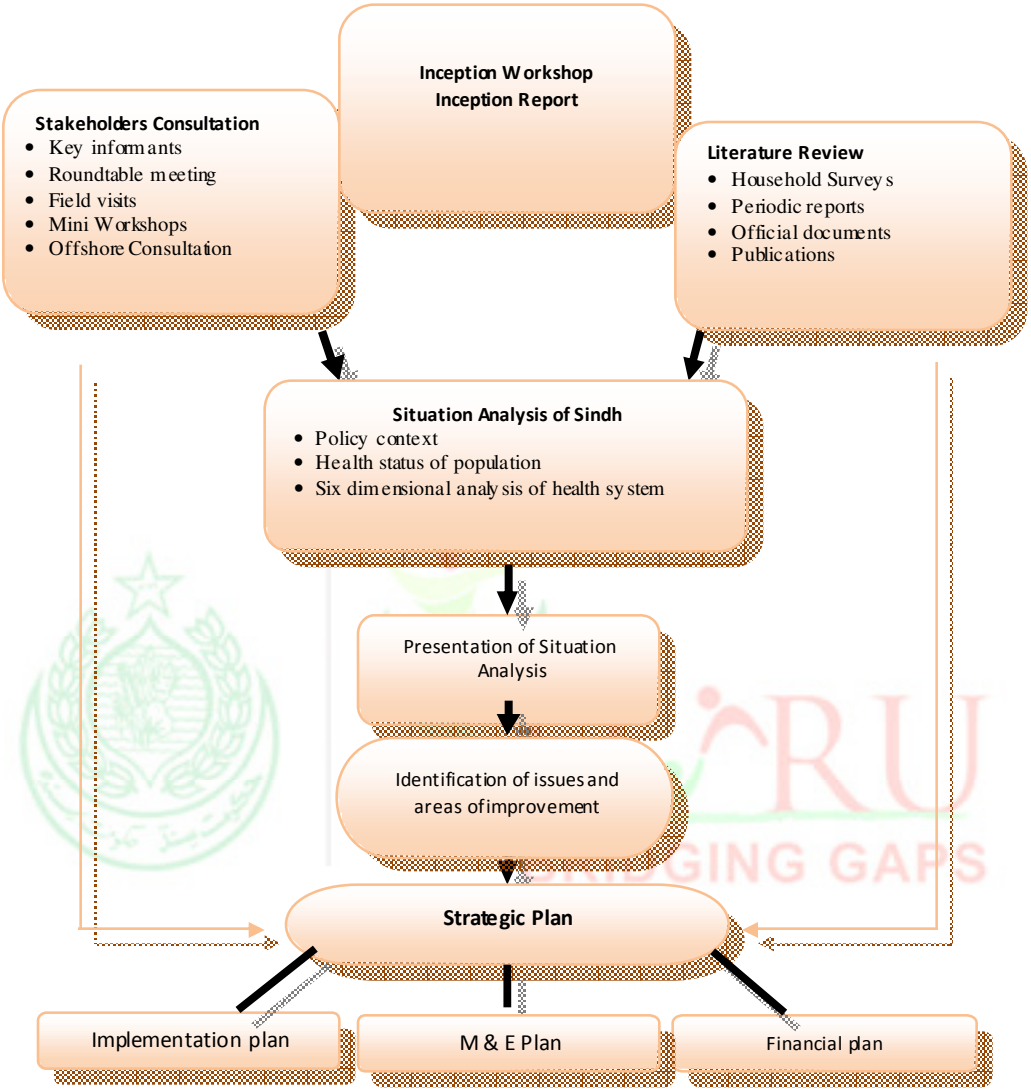
SPECIFIC OBJECTIVES

1. To enhance health outcomes in the Province while improving cost efficiency and quality of service delivery.
2. To enhance stewardship role of DOH for steering the public and private sector towards desired health outcomes.
3. To harmonize the strategy plan with national policies and international commitments while maintaining strong contextual relevance for Sindh.
4. To provide a Financial Framework for investment by government, private sector, UN agencies and international partners
5. To provide a broad Monitoring and Evaluation Framework for monitoring of sector strategy by DOH and partners

CONGRUENCE WITH OTHER COMMITMENTS

The Sindh Health Sector Strategy builds upon national and international commitments. It establishes congruence with existing international commitments of Millennium Development Goals for Child Health (MDG 4), Maternal Health (MDG 5), TB, Malaria, HIV (MDG 6), Access to Medicines (MDG 8) and contribution through inter-sectoral action to related areas of Poverty and Hunger (MDG 1), Gender Equality (MDG 3), and Environment Sustainability (MDG 7). It builds upon the key parameters of Access, Equity and Universal Coverage delineated by the National Health Strategy 2009 and the commitment for PHC and PPPs envisaged in the approved National Health Policy of 2001, while proposing measures contextual to Sindh for achieving these goals. It also consolidates several focal areas of the Sindh Health Policy of 2005 including the programmatic areas of MCH, NCDs, CDs, development of district health systems; staff development of female nurses and paramedics, emergency preparedness and governance measures related to procurement and tackling of inefficiencies.

PROCESS FOR STRATEGY DEVELOPMENT



A three tiered process was used for strategy development:

Inception framework development: This inception framework was adapted from the World Health Organization's health systems strengthening (HSS) framework encompassing i) demographic and health needs, ii) health services delivery, iii) human resources' needs, iv) essential medicines, iv) management information system (MIS), v) health financing and vi) governance. The Inception framework was shared with the department of health (DOH) Sindh and stakeholders in consultative workshops and approved after feedback. The Inception Framework was shared with DOH Sindh and international donors in consultative workshops and approved in September 2011 by GOS.

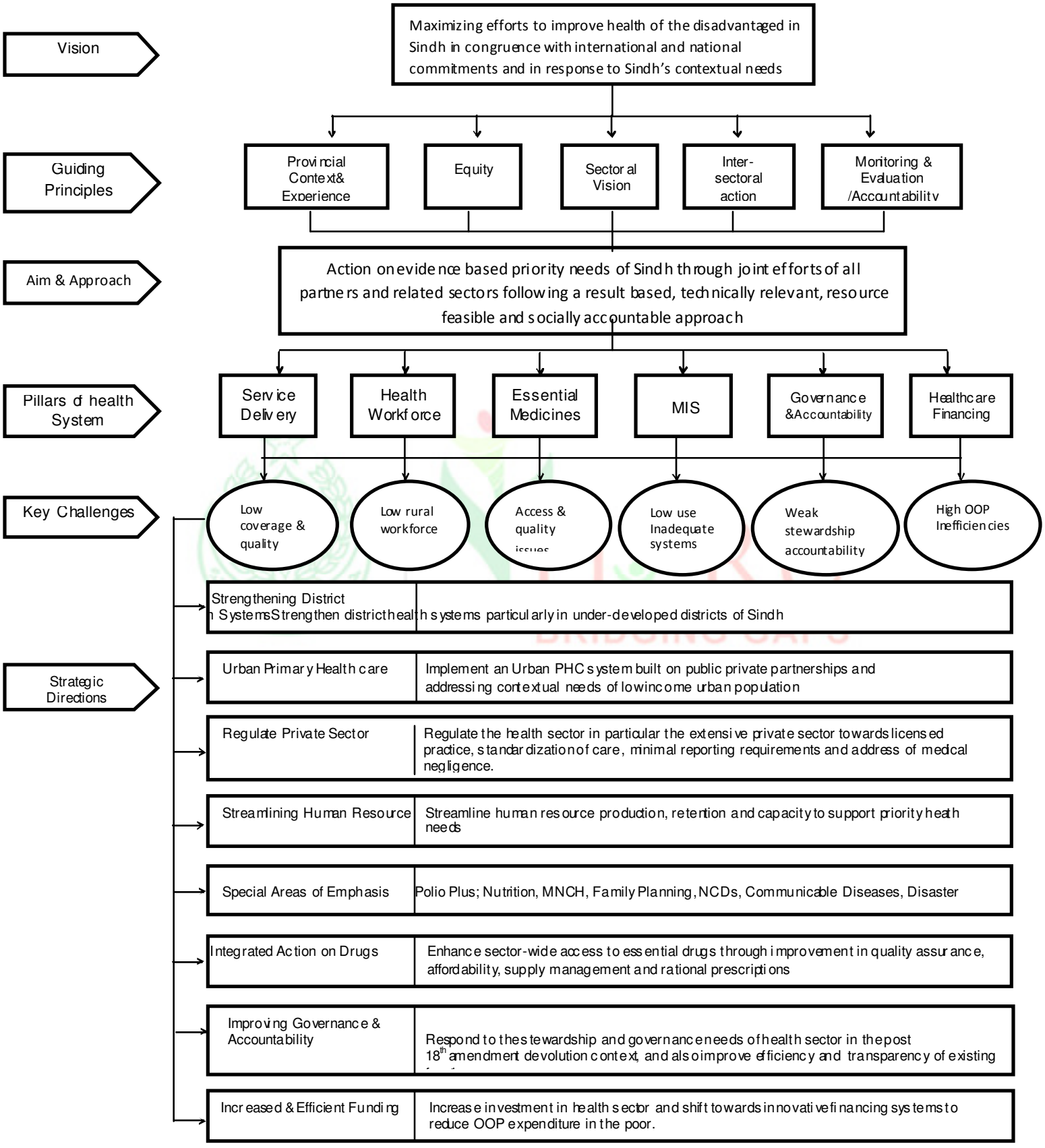
Situation Analysis: An evidence based Situation Analysis was carried out during September to November 2011 and report submitted in November 2011. The approved report after incorporation of peer review feedback was shared with development partners in January 2012 and Steering Committee of DOH in February 2012. Feedback received was incorporated and finalized in February 2012. The approved report is available as a reference document.

The methodologies adopted for the SA included secondary data review and analysis from 278 documents from multiple data sources, 85 key informant interviews and consultations. The data sources included the data from vertical programs, provincial health management information system (HMIS); Policy Acts and commitments; major national surveys such as PSLM 2010-11, PDHS 2006-07, PIHS, NCD Report; National Health Accounts (NHA) 2009; provincial surveys such as MICS, NPPI, and TRF district assessments in Sindh; peer reviewed publications related to Sindh; policy health sector notes of Sindh by World Bank and ADB; and various donor commissioned reports. Financial data sources included TRF review for Medium Term Budgetary Framework (MTBF); financial data from Public Accounts records, third party evaluations of PPHI and progress reports of vertical programs, In addition primary data sets were collected from private sector including some renowned non –profit providers and notable public private partnership models (PPPs) in medical institutions. A number of stakeholder meetings were conducted with public sector, private sector, UN agencies, and professional associations, backed up with a selected number of field visits (See Annex).

Strategy Development: Strategy development was based on key areas and themes identified by the SA Report and feedback of consultative sharing with DOH Sindh and donors. The process involved listing and refining key thematic areas, developing strategic objectives, strategic actions, development of key performance indicators, annual targets and gross costing. The strategy is built on the existing strengths of the DOH systems, private sector strength in the Province, reform experiences from South Asia and other low-middle income countries, and best practices on systems strengthening from HDRC-DFID, Partnership for Health Reform Plus, WHO and other internationally recognized sites. On advice of GOS a draft zero was developed, presented and shared with GOS and development partners.. **Quality Assurance & Feedback:** All three products including the Inception Report, Situation Analysis Report and Strategy Report were quality assured firstly through feedback by TRF Islamabad followed by review by International Team of Consultants at HLSP, UK. After peer review the reports were shared with donors and DOH, and further revisions made based on the feedback.

Health Sector Strategy Sindh

2012 - 2020



Key Health Indicators of Sindh		
Indicator	**Sindh**	**Pakistan**
IMR	81	78
NMR	53	54
MMR	314	276
Female Education	46	46
Sex Ratio	112.2	108.5
flush toilet facility	62	66
Safe Water	89	87
Population Growth Delivery	2.8	2.69
Institutional Delivery	42	41
Polio 3	70	79
Measles	77 %	82
Undernourished Children	40.5	31.5
Child Anemia	73	62
Maternal Anemia	62	51
Food insecurity	72	58
Adult Hypertension	40	
Adult Depression	32	
HIV/AIDS cases	3936	7547
TB case detection	59	70
Malaria cases/ 1000	1.5	
Prevalence of Hepatitis B and C	7.5	7.6
Public Sector Utilization	22	29
LHW coverage	45	
T. Public Sector Expenditure	37.7	32
T. OOP Expenditure	66	64

District Health Systems need strengthening more particularly in lower performing districts: Social indicators and health indicators are particularly poor in rural population of Sindh falling below the average for rural Pakistan and are closer to Province of Baluchistan. Coverage of maternal and child health services, contraception, vaccination and communicable disease control is patchy due to poorly functional basic and emergency services. Only 27% of deliveries take place in health facilities, merely 70% of under 1 year children are immunized for measles, 11% of child bearing age couples practice contraception. There are wide disparities within districts with Thatta, Tharparkar, Jacobabad, Badin, Mirpurkhas, Kambar-Shahdadkot and Kashmore being the least developed districts in terms of socio economic and health indicators.Use of public sector is lower in Sindh at 22% compared to 29% in rest of the country and there is poor functionality of public sector facilities from frontline to DHQ level. Focal efforts are needed to bring about minimum service coverage requirements and essential secondary care backup in weaker performing districts Population scattered over large distances poses challenges of health care access requiring aggressive outreach efforts while low awareness for promotive services also requires demand creation. The LHW Program is the flagship program of DOH for community interventions but has coverage of only 20-43% in certain districts and technical knowledge and supervision is weaker than other Provinces.

There are major gaps in PHC coverage in urban poor: Sindh has an unusual composition compared to rest of Pakistan with 47% of population residing in urban areas and Karachi has the highest growth rate of 3.2% in Pakistan mainly driven by in-migration. Wealthy people in urban areas can afford private health care however, the poor living in slums and squatters need public financed support for primary health care. At present PHC spending in Karachi is the least amongst other districts at $1 per capita with spending tilt towards tertiary care level. As a result there is thin PHC infrastructure with 1 public sector frontline facility per 82000 population, sub-standard frontline facilities, poor MDG indicators and polio outbreaks in low income areas. Non Communicable Disease are endemic striking economically productive adults, there is high level of environmental pollution, emergencies due to crime and terrorism, and special groups in need such as injectable drug users, street children and homeless elderly. There has been low attention to urban PHC system with public sector investment tilted towards tertiary hospitals.

Private sector is firmly entrenched but there have been no efforts to regulate it towards PHC goals.

Special Areas of Focus:

Nutrition: Sindh has the highest rate of child under-nutrition (40%), maternal (62%) and child anemia (73%) and food insecurity (72%) compared to rest of Pakistan. The burden of under-nutrition is borne by the rural poor. There is need for mainstreaming of key evidence based nutrition interventions through health sector and coordination with other department on nutrition as part of a larger provincial inter-sectoral strategy on nutrition inclusive of micro-nutrient supplementation, community based awareness and counseling, and inter-sectoral measures such as birth spacing, water and sanitation and food security programs.

Polio: Sindh has been reporting Polio cases from Karachi metropolis followed by at least 5 rural districts. Immunization coverage of Polio 3 in Sindh is only 70% and active immunity independently confirmed is nearly 20 percentage points lower than reported coverage. Weaknesses in polio coverage need to be effectively tackled with adoption of Polio Plus involving community based education, community based monitors and tighter governance of immunization campaign.

NCDs: With Pakistan in demographic transition, NCDs account for 56% of disease burden and are estimated to be higher in Sindh which has a higher urban population than other Provinces. NCDs are endemic in the urban poor and have an earlier age of onset compared to OECD countries thereby striking at the economically productive population. Ischemic heart disease accounts for the largest share of disease burden, followed by mental health and trauma while chronic obstructive lung disease and cancers make up the remaining burden. Karachi has one of the highest global rates of particulate air pollution and breast cancer. Despite high prevalence levels, majority of patients are unaware of disease onset and inappropriately controlled. At present there is no strategy for NCD control and efforts are concentrated at the costly tertiary level.

Communicable Diseases: Case load of TB in Sindh as in the national level is mainly amongst the poor. Although strides have been made in treatment success rates in recent years, TB case detection rate (CDR) has reached a plateau at 59% and is below national target of 70%. Outreach to private sector is still marginal and patients incur a substantial OOP cost for purchase of TB drug regimen which is freely available in the TB Control Program. Hepatitis B and C levels are also major concerns however unsafe practices of injection usage and needle disposal are widely prevalent and vaccination levels are at best 14-7% in better performing districts and 6-0% in remaining district. HIV control needs a special focus in urban Sindh as of the total of 7547 reported HIV cases in Pakistan, 3936 are in Sindh, with 81% reported from Karachi metropolis. There is a concentrated epidemic in injectable drug users (IDUs) followed by male sex workers (MSM) while other groups are at risk of HIV and include female sex workers, jail inmates, street children, fishermen, and long distance truck drivers. Targeted HIV prevention services in risk groups need revival while a long term strategy is particularly needed for drug users with links to a larger Mental Health Strategy.

Human resource deployment, retention and capacity is sub-optimal in rural areas particularly for female staff: At present there is no comprehensive strategy for staff production, postings and training. Annual production of doctors in Sindh is 2500 compared to 900 nurses and LHVs, and there is an unplanned growth of medical colleges numbering 19 in

the Province. There is a chronic shortage of all categories of female staff and specialists in rural districts, several "ghost" providers, and need to come up with alternative staffing plans. At the same time there is excessive general cadre and support staff at all levels resulting in efficiency losses. Existing administrative posts at both district and provincial levels lack mandatory management qualification and there are frequent transfers and politicized postings blunting performance.

Sindh has become prone to natural disasters but lacks disaster preparedness for health care: Province of Sindh witnessed two consecutive floods comprising of devastating rains in 2010 and heavy rains followed by flash floods in 2011. In 2010, over 5 million people from northern Sindh up to District Dadu while in 2011 more than two million people from 10 south-eastern districts were displaced. The calamities also damaged the government health care infrastructure in affected district and estimated economic loss of Rs454billion. These two events also exposed the weaknesses of the health system to face such situations for although intensive rescue efforts were put in place through medical camps and staff deputation, these lacked prior preparation and planning, and interventions made were not always in line with on ground needs. The disasters brought about intensive but uncoordinated involvement of private sector highlighting a missed opportunity for effective action. Moreover, both public and private sector efforts lacked a recovery phase plan. At present there is no permanent structure within the DOH and districts for disaster management.

Essential Medicine availability is poor in public sector and compounded by high OOP expenses, irrational use and suspect quality across the sector: Sindh at present lacks a comprehensive pharmaceutical sector strategy and this sub-sector has traditionally been over-looked in planning for health systems and health financing. Pressing regulatory issues include proliferation of shadow pharmacies, inappropriate prescriptions of medical practitioners and low use of recommended generics. There are also dire supply management issues such as high frequency of stock-outs, low quality parameters in purchasing, and lack of transparent checks in management of inventory. Health financing measures are also needed to reduce the high OOP expenditure on drugs. Above all there is insufficiency of human resources and absence of a central body to act as the hub of pharma functions for taking this forward.

There is lack of regulation despite highest private health sector concentration in Sindh: Sindh has the highest concentration of private sector and highest utilization of private sector in Pakistan however care provided largely goes unregulated. The unregulated health sector manages over 80% of the health infrastructure and is utilized by 78% of households, including the poor. There are uneven standards of care within the private sector, reportedly wide practice of quackery, shadow pharmacies and sub-standard diagnostics used especially by the poor, and lack of reporting linkages. There has been little effort at consumer awareness and although comprehensive consumer protection ordinance exists in Sindh this has to be effectively reinforced for health care. Although regulatory needs are considerable across the health sector there is absence of a regulatory authority and regulatory framework. A shift in approach is also needed moving from traditional punitive government dominated approach to a mix of incentive and legislation implemented with multiple stakeholders.

Governance Issues: The DOH Sindh is faced with the key issues of over centralization of authority, too many vertical programs, lack of mechanisms to enhance transparency and accountability. There is also weak oversight of service delivery and absence of a clear monitoring and evaluation framework. Moreover, up to now the mandate had been focused on

service delivery and stewardship demands of the entire health sector, in the post devolutions scenario, is a new challenge. Fragmented instances of PPPs exist in Sindh but there is lack of a scaling up based on lessons and requires a concerted strategy. A key problem also is lack of strong and stable leadership in DOH with frequent transfer of both senior and mid level management and weak capacity

Public sector spending is low in real terms, there are major inefficiencies and regressively high OOP expenditure: 66% of total health expenditure in Sindh comes from household's out of pocket expenditure with the rest mainly from different public sector sources. OOP is regressively distributed with lowest income quintile spending 7% of monthly household income on health care as compared to the average of 5.2% in higher quintiles, and lack institutionalized safety measures. Medicines account for largest share of OOP mainly due to inappropriate use in private sector and low availability in public sector. Within public sector non-salary operational budget at district level is particularly insufficient ranging from 17-25% while allocation of development expenditure at both provincial and district level is heavily tilted towards facility construction which has high operational cost implications for coming years. Although primary health care provides cost efficient means for disease control and management, it has not been the focus of major funding increase. There are also major inefficiencies within the public sector due to proliferation of parallel vertical programs, redundant posts, an overly ambitious but sub optimally functional district health systems and input based financial systems.

Successful stories: PPPs involving use of philanthropic funding for public sector facilities is well established in the urban hospitals and gradually extending to well performing facilities in rural areas. Notable example includes Civil Hospital Karachi with 2:1 ratio of philanthropic to public sector funding. These PPPs can further benefit through introducing sustainability and accountability mechanisms. Introduction of subsidized user charges have been successfully experimented by DUHS drawing in large volumes of patient population. Result based financing has been introduced through the NPPI initiative in the form of 2 pilots each on vouchers and contracting in disadvantaged districts and supported by independent monitors. However these have been slow in take off and results are awaited.

Positive advances with PPHI in terms of BHU infrastructure and functionality have been seen however there is little difference in terms of preventive and promotive services and technical aspects of services supplied are questionable. Contracting needs modification in terms of focusing the scope on low performing facilities rather than blanket contracting of both weak and better performing facilities, opening up bidding to draw in NGOs with expertise in health, and introduction of performance indicators.

Successful pilots with LHWs for implementation of evidence based package for neonatal care, child care and nutrition have been implemented in rural Sindh but lesson learnt are yet to be mainstreamed. Moreover alternative outreach strategies are needed for remote areas uncovered by LHWs.

Successful pilots with GPs in urban Sindh have been launched by NPOs in the area of non-communicable diseases, TB-DOTs, family planning, STIs. Lessons used from these ventures need to be scaled up into a systematic strategy.

Regulatory work has been initiated by Sindh Blood Transfusion authority in the area of registering blood banks. Similar work needs to be extended to diagnostic facilities, private providers and shadow pharmacies and would require setting up of a Regulatory Authority.
Information pooling systems have been self initiated in the injuries area by public and private sector hospitals and need expansion to scale in other priority disease areas through government support. Self accreditation by NPOs is also in place amongst the more well established NPOs and needs support, subsidy and extension to the larger NPO sector.

- **Box 1: Key Themes identified through Stakeholder Consultation**

- Concerted action is needed on MNCH, nutrition and polio eradication, as health indicators have either declined or at best remained stagnant while special focus is needed on control of key communicable diseases, occupational health and disaster management.
- Strengthening of district health systems are needed, particularly in the more disadvantaged rural districts providing integrated care and aggressive outreach.
- Shift needed in urban areas from heavy capital investment in hospitals to operational investment in primary health care and harnessing of private sector.
- NCDs are increasingly prevalent in urban poor and need cost effective primary and lifestyle interventions.
- Emergency care networks require strengthening rural districts with adequate links to major teaching hospitals.
- Skill enhancement of human resource needed for essential basic and secondary care, health management and drug dispensing.
- Comprehensive essential medicine strategy is missing and needed to address drug availability, quality, rational use and market quality assurance.
- Functional and structural changes needed across Department of Health to improve efficiency of the Health Department.
- Regulatory roadmap needed as Sindh has the highest concentration of private sector, including unlicensed providers.
- Strong and effective stewardship role needs to be built for DOH to steer entire health sector.
- Harnessing of private sector investment and services needs to be made for joint action on achieving desired health goals.
- Public sector investment in health needs significant increase and effective strategizing is needed of existing investment by philanthropic sector, corporate sector and international partners.

For details on current health situation and systems challenges in Sindh please refer to Sindh Situation Analysis Report for Health Sector Strategy 2011 and Annexures.

2. STRATEGY SUMMARY & IMPLEMENTATION

2.1 STRATEGY OUTLINE & SUMMARY: The Sindh HSS proposed seven Strategic Outcomes which are outlined below. Each Strategic Outcome is organized into sub sections comprising of i) Strategy; ii) Strategic Areas; iii) Key Issues; iv) Strategic Actions; Key Performance Indicators. Details of these are given in separate chapters. This is followed by a matching Monitoring & Evaluation Framework and accompanying Financial Framework.

Strategic Outcome	Strategy
1: Strengthen district health systems with special emphasis on under developed districts and urban PHC	
1a: Strengthen district health systems starting with most under-developed districts of Sindh	**1.1a:** Roll out of Minimum Service Delivery Package provision through FLCFs with at least one MSDP providing facility per Taluka .
	1.2a: Establish Essential Service of Health Package in DHQs for provision of essential secondary care provision linked to prioritized referrals from MSDP providing facilities
	1.3a: Contract out facilities in remote talukas of disadvantaged districts to qualified private sector entities for publically financed provision of MSDP.
	1.4a: Expanding community based outreach coverage with an integrated community health package involving community based education and behavioral change
	1.5a: Provision of supportive outreach measures including transport vouchers to increase facility utilization
	1.6a Inter-sectoral district based pilots on nutrition and social development through collaboration with BISP, water & sanitation, education and other sectors.
	1.7a: Strengthen district health governance for result based implementation of services in disadvantaged districts.
1b: Implement an Urban PHC system built on public private partnerships and addressing contextual needs of low income urban population.	**1.1b:** Develop an integrated family health practice model of "one stop shop for health and population" in low income urban localities involving registering of households with practitioner
	1.2b: Roll out of urban adjusted Minimum Service Delivery Package through franchising with GPs and NPOs, and upgrading and standardizing services of existing urban FLCFs
	1.3b: Implementation of urban adjusted Essential Health Service Package at identified secondary care centers in public and private sector with prioritized referral links from MSDP centers, and onward linkage to tertiary hospitals
	1.4b Deployment and training of LHWs and multi-purpose health workers linked to Family Practice model for community based health package targeted to entire household.
	1.5b Use of family health cards for free consultative services and

	drugs, and subsidized charges for diagnostic support
	1.6b: Support implementation of key lifestyle changes through behavioral change, regulatory and inter-sectoral action.
	1.7b: Strengthen governance for implementation of urban PHC systems, including integrated delivery from public sector, stewardship of private sector and implementation of viable financial models.
2: Streamline human resource production, retention and capacity to support priority heath needs.	**2.1:** Strengthen development, deployment and retention of female health staff in rural areas.
	2.2: Enhance coverage and technical supervision of LHWs, and deploy community male and female volunteers in under-covered remote areas using a modified package of services
	2.3: Fill vacancies of specialists at rural DHQs and Civil Hospitals through task shifting and telemedicine.
	2.4: Develop a trained administrative cadre to improve efficiency of health administration at district and provincial level.
	2.5: Develop a hospital pharmacy cadre to ensure rational use of drugs and quality management of inventory.
	2.6: Strengthen management of human resources in the Province.
3: Special Areas of Focus	**3.1:** Aggressive coverage of Polio through implementation of community based Polio Plus Program
	3.2: Mainstreaming of evidence based action for under-nutrition in health packages and establishing linkages with other sectors for integrated pilots
	3.3: Functionalising of MNCH services at ESDP, MSDP and community based level and enhancement of community based services building in evidence based interventions
	3.4: Re-defining links with DOPW with shift of contraceptive services through district and urban PHC systems and aimed at birth spacing in younger couples
	3.5: Mainstreaming of primary and secondary control of NCD interventions and lifestyle support in low income urban townships
	3.6: Establishing links between TB, Malaria and Hepatitis for integrated control at community based, MSDP and ESDP levels, and evidence based intervention enhancements.
	3.7: Implement focal action on HIV / AIDS and STIs in targeted risk groups through NGO government partnership
	3.8: Establish permanent structures at provincial and district levels for disaster management and enhance capacity.
	3.9. Establishment of medico-legal unit at provincial level for enhancing forensic medicine at DHQs and THQs
	3.10 Incorporation of integrated health response to gender based violence
	3.11: Participation in inter-sectoral action on occupational Health for industrial, agricultural and informal sector workers
4: Enhance sector-wide access to essential drugs through improvement	**4.1:** Enhance technical and budgetary support for market surveillance and quality assurance of drugs

in quality assurance, affordability, supply management and rational prescriptions.	**4.2:** Strengthen management of supply side so as to improve availability of quality drugs and improve accountability checks
	4.3: Implement multi-stakeholder led action on rational use of drugs.
	4.4: Plug deficiencies in production, deployment and training of pharmacists.
	4.5: Promote multi-pronged strategies for rational use of drugs, including promotion of generics, reduction in polypharmacy and improving drug dispensation practices.
	4.6: Develop a central body for pharma functions integrating and enhancing existing functions being undertaken by Drug inspectorate, quality Assurance and Training units.
5: Regulate the health sector in particular the extensive private sector towards licensed practice, standardization of care, minimal reporting requirements and address of medical negligence.	**5.1:** Establish a Regulatory Authority and develop systems for licensing and registration of private health providers and outlets.
	5.2: Provide incentives for self accreditation of private providers and implementation of standardized services in major urban areas.
	5.3: Enhance accountability for medical negligence and recourse for consumer redress.
	5.4: Implement a mechanism of minimal reporting from private for profit and NPO providers.
	5.5: Develop focal multi-sector strategies for ensuring healthier environment
6: To respond to the stewardship and governance needs of health sector in the post 18th amendment devolution context, and also improve efficiency and transparency of existing functions	**6.1:** Establish stewardship function of Secretariat for strong and effective steering of public and private health sector.
	6.2: Enhance visibility of Directorate in Implementation and oversight of district health services
	6.3: Functional and structural integration of programs having common outcomes for increased efficiency **6.4:** To establish a multi-stakeholder Provincial Health Commission on Non-Communicable Diseases focal body in the Province for technical guidance on control of NCDs across the health sector in Sindh.
	6.5: Establishing PPP Framework and re-working modalities for PPHI
	6.6: Establishing a well designed and integrated functional Monitoring and Evaluation Mechanism
	6.7: Establish hospital autonomy pilots for major tertiary hospitals / specialist while building in transparency, performance and pro-poor protection measures.
	6.8: To improve accountability in health service delivery by enhancing internal controls and establishing social accountability mechanisms at district and provincial levels

7: Increase investment in health sector and shift towards innovative financing systems to reduce OOP expenditure in the poor.	**7.1** Increase total investment in the health sector, increasing public sector expenditure and effectively harnessing funding from private sector and international organizations
	7.2: Increase investment in provision of primary care and essential secondary referral care
	7.3: Reduce OOP expenditure on medicines especially for chronic diseases through multi-dimensional initiatives
	7.4: Reduce catastrophic OOP expenditure through introducing Health equity funds and Community Pre-Payment Schemes for the poor.
	7.5: Increase efficiency and performance of government financial systems
	7.6: Increase efficiency through reducing overlaps across programs, reducing overlaps with private sector and removal of redundancies

2.2 STRATEGY IMPLEMENTATION: Translation of strategy into implementation will require oversight, operational planning and establishment of clear lines of funding and performance accountability.

It is recommended that a multi-stakeholder Sindh Health Task Force be established at the sectoral level, on the pattern of Punjab Task Force, comprising of DOH, related departments, private sector and development partners to steer strategy implementation and provide social accountability. The newly established HSRU Sindh would serve as the natural secretariat for technical streamlining, coordination of implementation and monitoring, and will require sustained technical assistance over the medium and long term.

Operational plans will be need to be developed in a number of areas with broad areas including I) programmatic areas such as MNCH-Family Planning; Nutrition, Communicable Diseases; Polio Plus, Non-Communicable Diseases, Disaster Management; Pharma; II) systemic areas such as Human Resource; District Strengthening; Urban PHC; and III) governance and financing areas such as Program Integration; Administrative Restructuring; Regulation, PPP; Social Accountability, Financing Systems. Effective coordination amongst development partners is needed for input into respective operational plans.

Clear funding lines for strategy investment will need to be established with careful balancing of pooled budgetary support versus and project specific financing. Donor Coordination Unit and PPP Coordination units need to be activated within the HSRU. Flow of funds internally and external sources need to be carefully aligned with the result based M&E framework outlined in the strategy.

Inter-sectoral action will be needed for implementation in the complex and challenging areas of promoting healthy lifestyles for NCD control, environmental health, occupational health, nutrition, gender violence, HIV and Tobacco control. This will involve making productive and sustained linkages with Departments of Local Government, Agriculture, Labor, SESSI, Education, Police as well as with non-public sector entities such as media and CSOs.

2.3 RISKS: The following may be some of the key risks that need to be managed for effective implementation of strategy:

- Capacity challenges within DOH to move to stewardship role
- Shift in political commitment due to upcoming elections
- Fragile funding base due to reliance on single source of investment
- Insufficient communication and social accountability

DETAILING OF STRATEGY

1. STRENGTHEN DISTRICT HEALTH SYSTEMS

Outcome 1: Strengthen district health systems with special emphasis on under developed districts and urban PHC

Sub-Outcome 1a: Strengthen district health systems starting with most under-developed districts of Sindh

Strategy 1.1a: Roll out of Minimum Service Delivery Package provision in frontline public sector facilities with at least one MSDP providing facility per Taluka

Key issues: Most public sector facilities in rural under developed districts are under-prepared to even provide basic health services due to low infrastructure and equipment maintenance, and shortage of staff, particularly female staff. The existing health service package also needs to be enhanced and integrated to maximize benefits during patient visit due to low access to facility in these districts. Task shifting is required given low access to health facility.

Strategic Actions	Stakeholders	Key Performance Indicators
1.1.1 a Formulation of a Minimum Health Service Package (MSDP) with required resource for needs of rural disadvantaged districts, inclusive of the following key priority needs: • **MNCH-Family Planning-Nutrition:-:** Provision of basic emergency obstetric services; early diagnosis and referral for CemONC provision of sick newborn resuscitation, stabilization and referral; safe newborn care at delivery and newborn checkup;; Integrated Management of Childhood Illnesses, EPI vaccination; control of parasitic infection; micro-nutrient supplementation, treatment of moderately malnourished children, nutrition counseling; Integrating contraception with pregnancy services; promotion of temporary methods; behavioral change strategies to promote spacing and client choice. • **Communicable diseases:** Screening of key communicable diseases such as Tuberculosis, Malaria, Hepatitis, provision of standard therapy; preventive measures such as Hepatitis B immunization, TB DOTs, bed nets; patient, family and community awareness. • **Resource identification** in terms of minimum staffing levels, diagnostic requirements, drug formulary, equipment requirements and costing.	HSRU, Technical Agency, Verfical Programs, UN Agencies	Detailed and costed rural MSDP package developed: 2012

1.1.2 a Establishment of "Minimum Health Services delivery Package" offering MSDP in each Taluka • Strengthening of facilities for MSDP delivery with respect to staffing, infrastructure, commodities, training etc. • Provision of performance based incentives for staff linked to minimal expected targets • Introduction of flexible timings, with working of two shift system • Reduction of parallel reporting systems to one integrated report on minimal performance indicators. • Provision of pre-paid transport vouchers for referral of screened emergencies to Comprehensive Health Centre.	Directorate, District Health Offices, Capacity Building Agency	One MSDP Centres functional in each Taluka: 2014

Strategy1.2a: Establish Essential Service of Health Package in DHQs for provision of essential secondary care provision linked to prioritized referrals from MSDP providing facilities

Key issues: District Head Quarter Hospitals in disadvantaged districts are poorly equipped to provide CemONC due to lack of specialists staff, poor equipment functionality, and frequent stock-outs of basic commodities. There is lack of functional ambulances, and presence of drivers and trained paramedical staff to handle and transport emergencies. Furthermore most specialist post are vacant resulting in poor provision of trauma care and basic operation theatre procedures and management of priority NCDs such as ischemic heart disease, COPD, mental health etc.

Strategic Actions	Stakeholders	Key Performance Indicators
1.2.1a Formulation of a detailed Essential Health Service Package (EPHS)for secondary care provision in under-performing districts, inclusive of following key priority needs: • **MNCH-Nutrition Family Planning :**Provision of emergency obstetric services; neonatal emergency services, management of sick newborn and acute child illness; management of severely malnourished children and malnutrition with complications; provision of long acting and permanent contraceptive methods • **Communicable diseases:** Treatment of complicated cases of Malaria, typhoid, hepatitis, drug resistant TB etc. • **Injuries:** patient stabilization with emergency support; referral provision to tertiary hospitals with trained team and equipped ambulances • **NCDs:** outpatient services for key NCDs including diabetes, hypertension, COPD, mental health; emergency and inpatient management of ischemic heart disease, stabilization and referral of complicated cases, referral provision to tertiary hospitals with trained team and equipped ambulances • Detection and referral of **substance abuse, domestic violence, child sexual abuse**. • Resource identification and costing	HSRU, Technical Agency, Vertical Programs, NCD Commission, UN Agencies	Detailed and costed rural EPHS package developed: 2012
1.2.2a Establishing "Comprehensive Health Centers" offering EPHS in each district • Task shifting from specialists to practitioners holding diploma in family medicine (Refer to Strategic Objective 3) • Attachment with pre-identified tertiary hospitals for referral and capacity building links • Use of e-health links with selected tertiary referral hospitals • Provision of performance based incentives for staff linked to minimal expected targets • Introduction of flexible timings for emergency care with working of two shift system • Introduction of DHIS with reporting on minimal performance indicators • Provision of early alert systems with tertiary hospital, functional and equipped ambulance and trained emergency care staff for safe patient referral.	Directorate, DHQ, Capacity Building Agency	EPHS centres functional : 2014

Strategy1.3a: Contract out facilities in remote talukas of disadvantaged districts to qualified private sector entities for publically financed provision of MSDP

Key issues: Each district has non-functional or poorly functional frontline facilities usually located in the remote Talukas. Successful pilots of NGO operationalization of poorly performing facilities have been seen in rural Sindh however formal strategy is needed to pull in NGOs to needed areas. Attention will need to be paid to transparency of NGO selection and establishment of credible reporting and monitoring links with public sector.

Strategic Actions	Stakeholders	Key Performance Indicators
1.3.1a Purchasing of private sector services • Identification of at least one poor performing health facility in each of the selected under-performing districts • Performance based contracting for 3-5 year period for MSDP with provision of budget for facility and outreach services • Flow of funds from DOH based on a mix of performance targets and routine budget transfer.	HSRU	Contracting out of non-functional facilities in identified remote Talukas: 2013
1.3.2a Provision of technical assistance for purchasing of private sector services • Development of contractual terms based on i) MSDP for facility and outreach; ii) administrative terms for staffing and budgetary control. • Competitive tendering for contracts and transparent quality based awarding managed by third party firm based on fixed apportioned budgets for facility and outreach Competitive re-bidding of contract after completion of term	Purchasing Agency, contracted NGOs	
Provision of technical assistance for monitoring and evaluation of contracting • Routine monitoring to DHO office through DHIS and establishment of district level forum for quarterly/ periodic progress • Annual facility and financial audits by third party firm • District health office and community oversight body for monitoring and trouble shooting	HSRU, Independent monitors, District Health Office	Performance assessment for re-bidding: 2016

Strategy1.4a: Implement enhanced and integrated community based package of services and expand service coverage measures

Key Issues: LHW coverage across Sindh is only 45%, supervision is infrequent and technically weak, and LHWs have low knowledge and practice scores compared to national figures. Successful pilots have been seen in rural Sindh with tight supervision and an enhanced community based package, however lessons are yet to be scaled up. In the more remote areas there is lack of eligible educated male recruits, however there has been little attempt to come up with an alternative cadre of community based workers.

Strategic Actions	Stakeholders	Key Performance Indicators
1.4.1a Expanding community based outreach coverage with an integrated community health package involving community based education and BCC • Enhancement of LHW service package with building in of evidence based measures for neonatal health, child health and nutrition (See Section 2). • Development of alternate cadre of female and male volunteers in areas where eligible LHWs recruits are not available, accompanied by an adjusted service package and curriculum focusing on community based awareness • Implement intensive community based health education package and BCC induding cell phone networks, FM radio services in line with evidence based interventions Communication Strategy of GOS • Linkage with education department for incentivized female school enrollment program in under covered areas linked to LHW recruitment.	Capacity building NGOs, MNCH Program, District Health Office	50% increase in coverage of outreach services: 2017

Strategy1.5a: Provision of supportive outreach measures including transport vouchers and CCTs to increase facility utilization.

Key issues: Scattered population over remote areas in much of rural Sindh, weak transport support and lack of outreach worker skills in timely referral results in delayed access, complications and neonatal mortality. There is also low demand for promotive and preventive services in the community such as ANC, PNC, family planning, immunization, well baby checkup etc, further contributing to neonatal and maternal complications.

Strategic Actions	Stakeholders	Key Performance Indicators
1.5.1a Timely referral support for EmONC • Task shifting to LHWs for emergency neonatal and child care measures at community level, Task shifting to CMWs for community based stabilization measures for maternal complications and early referral • Introduction of transport vouchers and transport support for referral of maternal and neonatal emergencies in each catchment area of each FLCF • Incentives to CMWs and LHWs for timely referral	Capacity Building Agency, District Health Office, community network	Increase in referrals by 50% by 2014
1.5.2a Demand creation for promotive care and risk screening • Implementation of Polio Plus for optimizing coverage • Community based education, counseling & screening on under-nutrition , pregnancy, child care and communicable diseases .	Above + financing firm	Community based education coverage: 80% of population

1.6a: Intersectoral district based pilots on nutrition and social development through collaboration with BISP, water & sanitation, education and other sectors

Key issues: Social indicators are poor in rural areas with wide disparities across and even within districts. Under-nutrition risk of infections, complications and fatality are due to poverty, unsafe water and sanitation, female illiteracy that require be holistically integrated and up-scaled successful pilots.

Strategic Actions	Stakeholders	Key Performance Indicators
1.6.1a Inter-sectoral pilots on nutrition Pilots in catchment area of FLCF • Links for inter-sectoral action on under-nutrition with other departments such as water and sanitation, food, education, PDMA etc. Poverty reduction projects in conjunction with BNP, BISP, Bait-ul-Mal and NGOs	Same + BISP + local NGOs, line departments	1 pilot in place in each district: 2015

Strategy 1.7a: Strengthen district health governance for result based implementation of services in disadvantaged districts.

Key issues: District health officers are untrained in formal district management and often appointed on political bases. District management is usually interpreted as administration with little move towards strategic planning, evidence based monitoring and financing. Culture of use of information is low despite availability of data and outreach based aggressive monitoring is rarely practiced nor is standardized. There is absence of systems of formal district based planning which can be linked to budgetary cycles.

Strategic Actions	Stakeholders	Key Performance Indicators
1.7.1a Enhancement of district management skills • Development of annual district health plan linked to budgeting cycle • Training of key district health office staff in district health management through short term trainings (Refer to Section 2). • Training of management on administration of MSDP, EP HS and outreach. • Commissioning of NGOs through competitive process for capacity building of district health offices with inputs on five year sliding scale.	Capacity Building Agency, District Health Office and Directorate	District managers and senior MOs trained: 2013
1.7.2a Increasing financing and improving new budgetary systems for efficiency • Detailed costing plan on required allocations and financing sources • Diversion of district development funds for upgrading, monitoring and operating costs of EPHS and MSDP • Provision of district performance budget awards s involving topping up of operational budget with bonus for meeting performance targets • Establishment of management and accountability system for distribution of performance rewards amongst District Health Office and performing facilities • Establishment of Program based financing systems • Establishment of management and accountability system for management of conditional cash transfers	Financing Firm, District Health Office	Financial management systems reforms introduced: 2014 Performance based budget system in place:2014
1.7.3a Establishing monitoring & supervision systems • Development of facility and outreach supervision plan for District Health Office and earmarking of resources • Packaged skill development on minimal data requirements and interpretation for performance based monitoring for district and facility managers • Establishment of functional DHIS hub and other monitoring parameters • Initiation of independent monitoring system for performance based results • Establishment of inter-face between district management, independent monitors and DOH	Capacity Building Agency, District Health office, Directorate	Fully functional Monitoring systems in place: 2014

Sub-Outcome 1b: Implement an Urban PHC system in townships built on public private partnerships and addressing contextual needs of low income urban population

Strategy 1.1b: Develop an integrated family health practice model of "one stop shop for health and population" in low income urban localities involving registering of households with practitioner

Key issues: There is patchy coverage of publically financed promotive, preventive services and basic in the urban poor. LHW coverage, outreach health education and functionality index of public sector facilities is amongst the lowest in Sindh. Majority of urban low income population utilize GP services with the poor bearing the heaviest burden of out of pocket expenses. The services provided by both private and public providers lack standardization and have not been tailored to contextual needs of urban dwellers. There is lack of comprehensive and integrated care provision at the household level although increasingly implemented in metropolitan cities in the region.

Strategic Actions	Stakeholders	Key Performance Indicators
1.1b Designing of a Family Practice Model for lowest 2 income quintiles with essential features to include: • Provision of Minimum Service Delivery Package to lowest 2 income quintiles in selected low income townships on a ratio of 1:20000 population • Service provision through franchised private sector facilities and standardized frontline government facilities. • Eligible households register for primary care with designated government frontline facilities and franchised GP practices/ NPO clinics. • Backstopping to Family Practice Model provided by Comprehensive Care Centers scoped for 1:50000 population, and comprising of designated government secondary care centers and NPO facilities,	Municipal Directorate, HSRU	Detailed plan developed and approved: 2013 FPM in 5 townships in Karachi in place: 2017

Strategy 1.2b: Roll out of urban adjusted Minimum Service Delivery Package through franchising with GPs and NPOs, and upgrading and standardizing services of existing urban dispensaries

Key Issues: The majority of ambulatory services are provided by private GPs however role of GPs has not been harnessed for service provision. While GPs provide quick access to health care in local neighborhoods, quality of care is highly uneven; however promising results have been seen through GP training and accreditation initiatives carried out in urban Sindh. The public sector

frontlines are much fewer and have wide variation ranging from dispensaries to RHCs. These need standardization for provision of essential and basic package of health services, and support for require material resources as well as trained staff.

Strategic Actions	Stakeholders	Key Performance Indicators
1.2.1b Formulation of a Minimum Service Delivery Package needs of low income urban population, inclusive of the following key priority needs: • **MNCH-Nutrition- Family Planning:** Provision of basic and emergency obstetric and neonatal services; Integrated Management of Childhood Illnesses; EPI vaccination; control of parasitic infection; exclusive breastfeeding and timely weaning etc; Integrating contraception with pregnancy care; assessment of malnutrition; micro-nutrient and caloric supplementation, nutritional counseling • **NCDs:** Screening and treatment for key NCDs such as hypertension, diabetes, mental health, breast and cervical cancer etc; rehabilitation of disabilities; lifestyle awareness for patient, household and community, counseling for cigarette smoking; referral of complicated cases. • **Communicable diseases:** Screening of key communicable diseases such as Tuberculosis, Malaria, Hepatitis, STIs, HIV; provision of standard therapy; preventive measures such as Hepatitis B immunization, TB DOTs, patient education. • Detection and referral of **substance abuse, domestic violence, child sexual abuse**.	HSRU, PDs of Vertical Programs, HSRU	MSDP package developed and costed: 2012
1.2.2b Accreditation and franchising with private practitioners • Identification of licensed general practitioners / NPO clinics in demarcated areas • Accreditation of licensed providers for delivery of basic service package through standard disease management trainings, training in outreach package, and audit of required facility infrastructure. • Purchasing services of accredited providers for MSDP provision to registered families using performance based contracts. • Establishment of monitoring of targeted indicators.	Urban Health Directorate Training & Accreditation Agency,	Completion of training and accreditation for Family Practice model :2015
1.2.3b. Standardization of public sector frontline facilities for MSDP • Standardized re-classification of urban secondary care facilities into Comprehensive Health Centers for delivery of MSDP. • Strengthening of facilities for MSDP delivery with respect to staffing, infrastructure, commodities, training etc. • Flexible scheduling of services to suit community needs • Provision of performance based targets and performance based incentives • Referral linkage with secondary care facility	Municipal Health Directorate, Technical Agency	Facilities standardized for MSDP: 2016

Strategy 1.3b: Implementation of urban adjusted Essential Health Service Package at identified secondary care centers in public and private sector with prioritized referral links from MSDP centers, and onward linkage to tertiary hospitals

Key Issues: Public sector secondary care facilities are few in number compared to population density however there has been a parallel mushrooming of NPO hospitals. Moreover existing public sector secondary facilities despite vary widely in terms of service package ranging from maternity homes to secondary hospitals, and also suffer from infrastructure and quality issues.

Strategic Actions	Stakeholders	Key Performance Indicators
1.3.1b. Standardization of public sector secondary facilities for ESDP • Standardized re-classification of urban secondary care facilities into Comprehensive Health Centers for delivery of EPHS • Strengthening of facilities for EPHS delivery with respect to staffing, infrastructure, commodities, training etc. • Priority treatment and emergency stabilization of referred patients from FPC. • Provision of performance based targets and performance based incentives • Establishment of emergency referral networks from Comprehensive Health Centers and to urban Tertiary Hospitals	Municipal Health Directorate, Technical Agency Social Marketing Firm	Facilities standardized for EPHS: 2016
1.3.2b. Accreditation and franchising with NPOs for remaining EPHS centers • Identification of NPO secondary care clinics in demarcated areas • Accreditation of NPO providers for EPHS through audits and provision of supplementary trainings • Purchasing services of accredited NPOs using performance based contracts. • Linkage development downwards with family practice centers in the catchment and upwards with identified tertiary hospital.	Municipal Health Directorate Training & Accreditation Agency,	Completion of training and accreditation for EPHS centers :2015

Strategy 1.4b: Deployment and training of LHWs and multi-purpose health workers linked to Family Practice model for community based health package targeted to entire household.

Key Issues: Urban low income populations, including slums, lack outreach community based services despite having a high burden of communicable and preventive diseases, and low health awareness. Disease profile of urban areas also suggests endemic non communicable diseases in urban poor, largely uncontrolled due to lack of screening and poor management at home. A shift if

emphasis is required from mothers to entire households and use of both male and female workers for household registration, awareness and referrals.

Strategic Actions	Stakeholders	Key Performance Indicators
1.4.1b Deployment and training of LHWs and multi-purpose health workers, inclusive of following key areas: • "Household-centered" LHWs and multipurpose male workers providing promotive, preventive, and limited medical services attached with financed family practice models. • Drivers for neighborhood level inter-sectoral action for health through enabling urban environment. • Targeting of neighborhood, household level, citizens committee, local municipal groups. • Provision of salary support • Provision of monitoring support and linkage with Family Practice Centers	Urban Health Directorate Training agency	Detailed plan with job descriptions and staff requirements:2012 Induction and training completed: 2013

1.5b: Use of family health cards for free consultative services and drugs, and subsidized charges for diagnostic support

Key Issues: Households incur high OOP expenses with poor households paying a greater proportion of their income (7.2%) than those in higher income quintiles (5%). Due to thinning of publicly financed primary health infrastructure, households incur substantial charges for ambulatory visits for common problems at both private and even public health facilities. Public financing of primary care in urban areas needs to carefully target those who cannot afford using a mix of fee services and subsidized services.

Strategic Actions	Stakeholders	Key Performance Indicators
1.5.1b Designing of alternative financing models for low income population, inclusive of • Provision of free pre-paid cards for the lowest 2 income quintiles. • Establishment of user charges with local stakeholder consultation at 1/3 to 1/4 of market rates for diagnostics and financial systems for local retention at facility level for facility maintenance, provider incentives etc. • Provision of free pre-paid cards by corporate sector for daily wage workers/ non-permanent employees.	Municipal Health Directorate, Financing Firm, Finance Department, Planning Cell, Planning & Development	Detailed plan developed and approved: 2013

Strategy 1.6b: Support implementation of key lifestyle changes through behavioral change and inter-sectorial action.

Key Issues: Many of the key issues of urban low income dwellers such as endemic NCDs and injuries, occupational health, substance abuse, HIV/AIDS, domestic violence and sexual abuse etc, require lifestyle and behavioral change. There is lack of concerted strategy and at best minimal fragmented efforts towards healthy lifestyle changes in urban population of Sindh.

Strategic Actions	Stakeholders	Key Performance Indicators
1.6.1b. Behavioral Change Communication for health promotion and risk reduction using innovative strategies including cell phone networks, in line with Communication Strategy of GOS Special areas of focus on MNCH, family planning, NCDs, substance abuse, HIV, occupational health: See Section 4 for details.	Municipal Health Directorate, Vertical Programs, HSRU	Development of BCC strategies by 2013 Roll out of BCC in targeted areas by 2014
1.6.2b Support Enabling environment through inter-sectoral action **Environment based approaches:** • Development of a Health Impact Assessment (HIA) tool to assess the possible health consequences of a proposed policy or project, to bring a population health perspective to urban planning and development decisions; • Establishment of inter-sectoral committees on healthy environment within existing District Task Forces, for i) information sharing and consensus on projects related to air and land pollution, waste disposal, pedestrian safety, housing, green spaces etc; and ii) implementation of NCD Commissions Action Plan for safer environment. • Involvement of NGOs for stakeholder awareness and mobilization on healthy environment. **Community based approaches:** • Defined plans of engagement at neighborhood levels local community groups, civil society organizations, line departments, and working with these populations. • Cost sharing plan involving community resources, DOH, local government.	Municipal Health Directorate, Environment Protection Agency, Local Government, other line departments, District Task Force, NGOs. Citizens neighborhood bodies, outreach workers, Town health officers, NGOs	Detailed action plan developed: 2013. Inter-sectoral committees District Task Force in place: 2013 Neighborhood committees functional at sub-township level 2014. Performance Assessment: 2016

Strategy 1.7b: Strengthen municipal health governance for implementation of urban PHC systems, including integrated delivery from public sector, stewardship of private sector and implementation of viable financial models.

Key issues: The urban health systems in major cities is complex comprising of facilities under control of DOH, local government, recently also under MOH, and other departments. There is lack of a hub for cohesive planning and oversight of urban health systems. Moreover other challenging needs such as harnessing of private sector for service delivery, provision of outreach services and BCC implementation, and inters-sectoral action also need to be comprehensively addressed as part of urban health system and require nesting within an integral hub. A focal body to meet these needs is therefore required supported by technical and financial strengthening.

Strategic Actions	Stakeholders	Key Performance Indicators
1.7.1b. Structural Strengthening: • Establishment of a Urban Health Directorate that serves as a focal body for public sector financed primary and secondary facilities operating in Karachi and Hyderabad under the DGHSS • Structural organization into at 6 key units including Planning & Development, Services, Financing, PPPs, MIS, Environment & Behavioral Change. • To be headed by Director Health Services reporting to DG Health Sindh	District Health Officers of Metropolitan cities, M.S. of secondary hospitals, Local Government, HSRU, Planning Cell	Establishment of Municipal Directorate: 2013
1.7.2b Functional Strengthening: To enhance working to meet the following functions: • Detailed planning urban primary and secondary care delivery • Integration, standardization and management of public sector facilities Department of health, local government, those previously financed by Federal government, • Stewardship and oversight on franchising with private providers with management of purchasing by expert agencies • Monitoring of public sector facilities and PPPs against minimal acceptable infrastructure, staffing, commodity and facility utilization parameters. • Implementing unit for all projects on urban health service delivery.	Planning Cell, HSRU	M&E system in place: 2015

1.7.3b Financial Strengthening • Development of a budgetary plan and allocation requirements for key areas of administration, services, PPPs, monitoring, and behavioral change • Harnessing and coordinating contributions from corporate sector, philanthropic sectors and international donors. • Establishment of alternative financing mechanisms of user fee, free cards and community pre-payments.	Finance Department HSRU Technical Agency for financing schemes	Detailed budgetary plan and funding commitments in place: 2012 Financing pilots payments in place: 2014
Strategic Actions	**Stakeholders**	**Key Performance Indicators**
1.7.4b Technical Strengthening • Training of key leadership staff in key areas of stewardship, financial, M&E, management and accountability through short term and long term trainings (Refer to Section 2) • Monitoring and supervision systems established using DHIS and supplementary mechanisms • Operations research for viable service delivery and financing pilots for urban PHC.	Training agency, Technical Agency, Research firms	MIS system fully functional : 2014 Operations research projects completed:2015

2. HUMAN RESOURCE MANAGEMENT

Outcome 2: Streamline human resource production, retention and capacity to support priority heath needs.

Strategy 2.1: Strengthen production, deployment and retention of female health staff in rural areas.

Key issues: There is acute shortage of female doctors, nurses and female paramedic staff across rural areas in Sindh with 2628 nurse, 894 LHVs and 826 midwives present as opposed to more than 30,000 doctors. Even those available, especially nurses and female paramedics, are poorly trained and therefore usually perform below potential. LHWs coverage is only 45% in Sindh with some districts having under 20% coverage due to lack of eligible recruits in remote areas. CMWs although trained are yet to be deployed in all districts.

Strategic Actions	Stakeholders	Key Performance Indicators
2.1.1 Increase Production of Nurses and Female Paramedics to redress imbalance in female staff • Increase production of general nurses, nurse midwife and people's midwife by two fold through use of community advocacy, add campaigns etc. • Increase production of LHVs by two fold through use of community advocacy, advertisement campaigns etc.	Directorate Nursing, Pakistan Nursing Council	Increase nursing production to 5000/ year and LHV production to 3200/ year : 2020
2.1.2 Deployment and Retention of doctors and paramedics • Provision of hardship allowance for demarcated remote areas • Salary topping with provision of performance based incentives to female staff for basic and emergency obstetric services and family planning • Provision of public sector facilities to female private practitioners based on performance based reimbursements • Employment of couples to enhance retention. • Supportive measures from district management for safe work and living environment, including protection from sexual harassment • Provision of job supervision of CMWs and defined linkage with health facilities	HSRU, Directorate, District Health Office	Postings completed of essential female health staff in all selected MSDP and EPHS centers: 2014
2.1.3. Targeted skill enhancement of female staff (100 % facility staff and 50% of outreach workers) • Trainings for female doctors and LHVs on MSDP and EP HS in selected disadvantaged districts • Trainings of CMWs and LHWs on enhanced outreach measures in disadvantaged districts (Section 1).	Technical agency, PHDC	Completion of district training; 2015

Strategy 2.2: Enhance quality and outreach of community based workers

Key Issues: LHW coverage across Sindh is only 45%, supervision is infrequent and technically weak, and LHWs have low knowledge and practice scores compared to national figures. Successful pilots have been seen in rural Sindh with tight supervision and an enhanced community based package, however lessons are yet to be scaled up. In the more remote areas there is lack of eligible educated male recruits, however there has been little attempt to come up with an alternative cadre of community based workers.

Strategic Actions	Stakeholders	Key Performance Indicators
2.2.1 Enhanced quality of LHW services • Mainstream evidence based interventions on neonatal mortality, child mortality and nutritional enhancement in LHW package • Training of LHWs for early recognition and stabilization of maternal emergencies • Improve performance checks and budgetary support for LHW supervision	Technical agency, National Program, DHOs	LHWs trained in enhanced services: 2015
2.2.2 Expand coverage using multipurpose workers in remote areas • Deploy community male and female workers in under-covered remote areas using a modified package of services • Introduction of adult literacy program linked to LHW recruitment in collaboration with department of education	DOH& DOE	Coverage extended to 50% of under covered areas: 2017

Strategy 2.3: Fill vacancies of specialists at \DHQs and Civil Hospitals through task shifting and telemedicine.

Key issues: There are total of 2846 posts of specialist in various disciplines of which 1055 are filled and there are 1791 vacancies. Shortage of specialists is acute in DHQs, while those posted even in Teaching Hospitals in rural districts often do not possess CPSP required qualifications. Unnecessary specialist posts exist at MCHC, RHC and Talukas which are rarely filed and need rationalization.

Strategic Actions	Stakeholders	Key Performance Indicators
2.3.1 Task shifting from specialists to practitioners having certified diploma in family medicine for THQs/ DHQs Recognize DHQs for rotational placement of post graduate trainees in home districts Skill boosting through certificate courses in key priority areas of trauma management, ischemic heart disease, diabetes, hypertension, mental health and EmONC, and other areas of EPHS (Section 1) Telemedicine support from large teaching hospitals for ward rounds, OPD and casualty, learning from successful pilots in northern Pakistan.	CPSP, Commission for NCDs, Family Medicine Association, Teaching hospitals, DHQs	Task shifting against specialist Positions in DHQs: 2015 Staff Training of DHQ staff: 2015 Telemedicine networks with teaching hospitals in place 2014

Strategy 2.4: Develop a trained Health Management Cadre to improve efficiency of health administration

Key Issues: There is 10,908 staff in the general cadre which forms the single largest concentration of staff in the public sector and needs rationalization and separation of administrative staff from general practitioners. Staffs appointed on administrative posts are not exposed to pre-service and in-service training, and career progression to senior leadership posts is de-linked to public health certification. There is also need for widening management skills to incorporate new demands of planning, evidence based monitoring and financing.

Strategic Actions	Stakeholders	Key Performance Indicators
2.4.1: Development and training of "Health Management Cadre" • Separation of general cadre staff responsible for district management, program management, and provincial administration into an administrative cadre • Provide minimal pre-service training for administrative cadre in health care management • Introduce mandatory in service training with special focus on strategic planning, monitoring and evaluation, and financing. • Linkage of career promotion to senior positions with Diploma/ Masters Certification in Public Health.	HSRU, PHDC, Public health institutes,	Administrative cadre in place at Province and across all districts: 2013 In-service management training completed : 2014

Strategy2.5: Develop a hospital pharmacy cadre to ensure rational use of drugs and quality management of inventory.

Key Issues: Pharmacist production continues to be extremely low across the sector at 1:7166 population compared to recommended ratio of 1:2000, 70% of pharmacists produced are working in industry rather than in service delivery, and are particularly lacking in public sector hospitals. This is one of the contributing reasons to irrational drug use and weak logistics management at public sector hospitals.

Strategic Actions	Stakeholders	Key Performance Indicators
Refer to Section 4	Pharmacy Directorate, Association of Hospital Pharmacists, WHO	Hospital pharmacy cadre established: 2013 Hospital pharmacists appointed in all DHQs and tertiary hospitals: 2015

Strategy 2.6: Strengthen management of human resources in the Province

Key issues: The DOH is yet to holistically plan key human resource requirements for the Province and steer human resource production and deployment to fill existing gaps. There is lack of a centralized database within the DOH for public sector staff and similarly lack of information on private sector. There are pressing training needs for different cadres and requires a systematic mechanisms for addressing of training needs.

Strategic Actions	Stakeholders	Key Performance Indicators
Establish a permanent unit within the Secretariat for human resource planning and development. Provision of incentives to private sector for production of staff in allied health e,g pharmacists, nurses, CMWs etc, Updating and use of human resource database of DHIS in public sector Development of database of licensed private practitioners in each district/township (Refer to Section 6) Commissioning of CPSP, professional associations and reputable institutes for master training and protocol developments. Capacity building of PHDC for provision of pre-service and in-service training for district staff	Department of Health Technical Assistance	Human resource master plan in place: 2012 Block grants provided to increase production of allied health personnel by 50%: 2015

3. SPECIAL AREAS OF FOCUS

Outcome 3: To enhance and streamline actions in specific programmatic areas requiring special need

Strategy 3.1: Strategy 3.1: Aggressive coverage of Polio through implementation of community based Polio Plus Program in high risk union councils

Key issues: Sindh has been reporting Polio cases from Karachi metropolis followed by at least 5 rural districts. Immunization coverage of Polio 3 in Sindh is only 70% and active immunity independently confirmed is nearly 20 percentage points lower than reported coverage. Weaknesses in polio coverage need to be effectively tackled with adoption of Polio Plus involving community based education, community based monitors and tighter governance of immunization campaign.

Strategic Actions	Stakeholders	Key Performance Indicators
3.1.1 Integrated counseling: Integration of education and counseling on EPI, hygiene and nutrition in community based packages given by LHWs / multipurpose workers. **3.1.2 Enhanced services:** Male and female community support groups, enhanced communication package involving social networks; involvement of GPs in routine immunization. **3.1.3 Independent Monitoring:** Surveillance surveys to check gap between coverage and actual administration of polio drops, and polio drop intake and immunity levels.	EPI Program, LHW Program, WHO, NGOs, Surveillance Agency	Implementation of Polio Plus in all districts: 2016

Strategy 3.2: Mainstreaming of evidence based action for under-nutrition in health packages and establishing linkages with other sectors for integrated pilots

Key issues: Sindh has the highest rate of child under-nutrition (40%), maternal (62%) and child anemia (73%) and food insecurity (72%) compared to rest of Pakistan. The burden of under-nutrition is borne by the rural poor. However the scope of the nutrition program has been small and does not address the magnitude of the problem.

Strategic Actions	Stakeholders	Key Performance Indicators
3.2.1 Integrated counseling: Integration of education and counseling on nutrition with larger community based package implemented by LHWs/ multipurpose community volunteers. **3.2.2 Enhanced services:** Integration of evidence based package of nutritional interventions involving micro-nutrient and caloric supplementation within EPHS, MSDP and community based packages. **3.2.3 Inter-sectoral action:** Inter-sectoral pilots at district level for multi-pronged enhancement of nutrition with related departments such as food, water and sanitation, education, BISP etc.	Nutrition Program, WFP, LHW Program	Implementation of Enhanced Nutrition in all districts: 2016

Strategy 3.3: Functionalizing of MNCH services at EPHS, MSDP and community based level and enhancement of community based services building in evidence based interventions

Key issues: Sindh has shown no reduction in Infant Mortality Rate of 81 deaths per 1000 live births over the last decade while Neonatal Mortality Rate, the major cause of infant deaths, has actually increased from 44 to 53 over the last decade. Institutional deliveries have remained stagnant at best or even declined over the decade. This is a cause for alarm and concerted efforts are needed for MNCH particularly in rural Sindh where maternal and child health service coverage is patchy due to poorly functional basic and emergency facilities, lack of female staff and client inability to meet OOP expenses for transport, drugs and services.

Strategic Actions	Stakeholders	Key Performance Indicators
3.3.1 Task shifting in areas of difficult access: training of CMWs for early recognition and stabilization of maternal emergencies, BemONC training of nursing and paramedic staff in frontline facilities, use of trainee residents for CeMONC at THQs/ DHQs. **3.3.2 Community based intervention:** Mainstreaming of evidence based interventions to enhance community based management of MNCH; **3.3.3 CMWs**: Accelerated deployment of CMWs and performance accountability links with health facilities	MNCH Program, LHW Program, Directorate	Enhanced MNCH package implemented in all districts: 2016

Strategy 3.4: Re-defining links with DOPW with shift of contraceptive services through district and urban PHC systems and aimed at birth spacing in younger couples

Key issues: Contraceptive prevalence is low and sub-optimal at 26.7%, has largely remained stagnant over the last decade and fertility reductions as seen in urban areas are mainly due to increased age of marriage rather than roll out of contraceptive services. Contrary to common perceptions, there is high unmet need for contraception in both rural and urban areas, and as much as 88% of induced abortions are due to unmet need. DOPW is responsible for population welfare despite being a minor provider of services, and services remain targeted at women who have completed their fertility missing out on young couples.

Strategic Actions	Stakeholders	Key Performance Indicators
3.4 Integrating contraception provision: Provision of free contraceptives and training by DOPW to all DOH facilities for birth spacing. Integration of services with pregnancy care to reach out to couples and supported by community based BCC.	MNCH Program, DOPW, district managers	Integrated contraceptive services with maternal care: 2016

Strategy 3.5: Mainstreaming of primary and secondary control of NCD interventions and lifestyle support in low income urban townships

Key issues: With Pakistan in demographic transition, NCDs account for 56% of disease burden and are estimated to be higher in Sindh which has a higher urban population than other Provinces. NCDs are endemic in the urban poor and have an earlier age of onset compared to OECD countries thereby striking at the economically productive population. At present there is no focal body for NCD control, lack of strategy for NCD control and efforts are concentrated at the costly tertiary level.

Strategic Actions	Stakeholders	Key Performance Indicators
3.5.1 Focal body: Establishment of NCD commission at provincial level comprising of public and private sector and related departments, for providing technical direction on NCDs. **3.5.2: Cost effective control:** development of service package for NCD control at primary and secondary level for integration into EPHS and MSDP packages with particular attention to diabetes, hypertension, mental health, injuries, COPD and cancers. **3.5.2 Lifestyle changes:** integration of community based lifestyle changes in urban PHC, regulatory support on occupational health, environment health including pollution and waste disposal. **3.5.3: Data gathering**: Conduction of population based survey in NCDs; facility based data pooling across major public and private hospitals.	NCD Commission, Municipal Directorate, Environment Protection Agency, survey agency	Operationalized NCD Commission: 2013

Strategy 3.6: Establishing links between TB, Malaria and Hepatitis for integrated control at community based, MSDP and ESDP levels, and evidence based intervention enhancements.

Key issues: Malaria incidence is on the rise and has coincided with outbreaks of dengue fever needing a proper vector control strategy. TB is believed to be endemic however exact case load for Sindh is not available, case detection at 57% needs further improvement while treatment success rate of 87% is above national target. Blood borne diseases such as Hepatitis B and C have a high prevalence of 3-4% however vaccination coverage is at best 14-15% in the best performing districts.

Strategic Actions	Stakeholders	Key Performance Indicators
3.6.1 General population: Integration with EPHS, MSDP and community based packages across all districts; use of multi-purpose male workers for community based awareness and measures, support to SBTRA for safe blood product screening. **3.6.2 PPPs:** Joint roll out of integrated communicable diseases package for partnerships with general practitioners and NPOs.	Vertical Programs, DGHSS, SBTRA, private sector	Implementation of integrated package and PPPs in all districts: 2016

Strategy 3.7: Implement focal action on HIV / AIDS and STIs in targeted risk groups through NGO government partnership

Key issues: HIV has an overall low prevalence of 0.1% but concentrated levels of 26-13% in injectable drug users. The highest burden of HIV cases in Pakistan is from Sindh and 81% of these cases are from Karachi. However despite some initial success, there has been discontinuation of targeted interventions due to lack of funds.

Strategic Actions	Stakeholders	Key Performance Indicators
3.7.1 General population: Integration with MSDP in urban townships for HIV counseling, awareness and voluntary screening; support to Sindh Blood Regulatory Authority for blood product screening. **3.7.2 Risk group interventions:** Targeted intervention in high risk groups through NGOs particularly for IDUs and supported by detoxification and rehabilitative services. **3.7.3. PLWA support**: provision of ARV therapy and rehabilitation services .	SACP, NGOs. SBRA, Municipal Directorate	Provision of risk group services initiated: 2014

Strategy 3.8: Establish permanent structures at provincial and district levels for disaster management and enhance capacity.

Key issues: Disaster preparedness lacks a ready strategy that identifies appropriate measures and accompanying resource mobilization plan. There is lack of a permanent disaster management unit within the DOH and functionally overlap of functions between the Directorate and Secretariat. Information systems to provide ready statistics for planning and for easy dissemination to media and public are also presently lacking. There is lack of disaster preparedness at the district in terms of availability of trained manpower and resources that can be mobilized. Focal hubs that serve as contact point for the public and can effectively mobilize appropriate interventions also need identification and capacity building.

Strategic Actions	Stakeholders	Key Performance Indicators
3.8.1. Establishment of a Provincial structures for Disaster Management • **Setting up of a Disaster Management Unit at Secretariat** to develop disaster management plan, coordinate with Provincial Disaster Management Authority, line departments, UN agencies, Naval guards, private sector; be responsible for resource mobilization, and management; Information provision to media and public. • **Setting up of a Disaster Management Unit at Directorate** to address district mobilization and supervision for disasters, inventory and logistics management, use of required information systems such as DEWS, GIS etc, and supervision of recovery efforts	Secretariat Directorate, UN agencies, PDMA, ICRC	Functional Provincial Disaster Management Units
3.8.2. Establishment of District Disaster Management Hubs for Disaster Relief • Notification of disaster management hubs in each DHO Office, comprising of medics and paramedics, for activation during disaster and advance step wise mobilization plan • Key responsibilities to include management of required resources for use during disaster, linkage with DHQ, District Task Force and other entities, enlisting of private organizations for mobilization during disasters, and public awareness for contact point during disaster/ emergency • Training in disaster mitigation, acute phase and recovery phase assistance.	District Health Office, Directorate, UN agencies, PDMA	Functional district disaster core groups in all districts : 2012
3.8.3 Conduction of a Rapid Situation Analysis for Disaster Mitigation • Compilation of essential district level information on key areas such as available human resources, outreach and transportation systems, communication links, functional DHQs, private sector resources etc. • Identification of high risk districts and capacity building plan for district readiness.	HSRU, Technical agency, UN agencies	Completion of Rapid Situation Analysis: 2013

3.9: Establishment of a Medico-Legal Unit at the Provincial Level for enhancement of forensic medicine services at THQs and DHQs.

There has been heavy demand on medic-legal services in recent years due to increase in crime, violence and suicides. Forensic medicine services are available only at public sector Teaching Hospitals and Civil Hospitals but are not available at DHQs and THQs. There is lack of quality assurance and standardization across forensic service units in the Province and insufficient resources for technical support.

Strategic Actions	Stakeholders	Key Performance Indicators
• Establishment of provincial unit with designated persons and budgetary support, hosted within Teaching Hospital • Provision of training on forensic medicine practices to medical officers appointed for forensic medicine services • Provision of equipment and budgetary support for diagnostics to designated forensic medicine units in DHQs and THQs • Information provision to stakeholders for location of medical legal units • Development and maintenance of a database of forensic medicine cases linked to injuries and other databases	Secretariat, M.S of designated hospitals	Functional provincial unit district services: 2015 :

3.10: Incorporation of integrated health response to gender based violence

On Global Gender Gap Index and Sindh shows highest gender gap in comparison to other Provinces. Among the reported incidents 1/3rd were murder and honor killing of women followed by abductions and kidnappings and rape including gang rape and women committing suicide. While Pakistan has a Gender Reform Action Plan (GRAP), health responses need to be mainstreamed into health service delivery and community outreach.

Strategic Actions	Stakeholders	Key Performance Indicators
• Community based advocacy and education through women development department, police, NPOs, shelter homes etc and in alignment with Communication Strategy • Development of links with mental health and injuries service packages • Training of focal personnel on health related counseling and referrals • Development of linkages with allied departments and NPOs for rehabilitation	HSRU, Provincial NCD Commission, Women Development Department, MNCH Program, DOPW	Training and Integrated packages on gender based violence: 2015:

3.11: Participation in inter-sectoral action for occupational health in industrial, agriculture and informal sector

Occupational health is a collective responsibility of a number of government entities including Labor, Fisheries, Mines and Mineralogy, SESSI and Health but lacks integrated strategic responses. Information is needed on major causes of occupational injuries and illnesses, inter-sectoral strategic and monitoring frameworks, and a greater effort at both employer and employee education

Strategic Actions	Stakeholders	Key Performance Indicators
• Operational research on magnitude, nature and risk factors for occupational health • Participate in provision of BCC for safe work practices and safe work environment • Provision of capacity building training for service providers on recognition and treatment of common occupational health related problems.	HSRU, Provincial NCD Commission, District Governments, Department of Labor, Department of Mines & Mineral Development, Department of Agriculture, Department of Environment, NPOs	Data analysis on risk factors: 2013 Advocacy and BCC strategy: 2013 Training of providers on occupational health: 2015

4: ESSEMTIAL MEDICINES

Outcome 4: Enhance sector-wide access to essential drugs through improvement in quality assurance, affordability, supply management and rational prescriptions.

Strategy 4.1: Enhance technical and budgetary support for market surveillance and quality assurance of drugs

Key issues: There is common flooding of counterfeit drugs in the market but lacks a systematic market surveillance system with present system being sporadic and complaint driven. There are an excessive number of drug outlets in Sindh numbering approximately 15000, majority do not meet licensing criteria, while drug testing is under funded and needs technical boosting.

Strategic Actions	Stakeholders	Key Performance Indicators
4.1.1 Market surveillance: Provision of training and necessary budgetary and technical support to Drug inspectors for market surveillance. Introduction of three yearly periodic market survey of drug outlets in addition to the complaint driven market audit, availability of generics on provincial formulary, pricing; drug storage and dispensing parameters of drug outlet.	Drug Inspectorate, Technical Agency for Surveillance, WHO	Trained and equipped drug inspectors in place : 2013 Periodic market surveys: 2014 and 2018
4.1.2 Licensing of Drug Outlets: Review of quality threshold for licensing of drug outlets; rationalization of drug outlets with enforcement of minimum quality standards, licensing function with Drug Inspectorate with representation from EDOs, and technical strengthening of drug inspectorate to undertake this function; periodic renewal of licensing; provincial and district database of drug outlets with periodic updates	Drug Inspectorate, Regulatory Authority	Completion of registration and licensing of existing drug outlets: 2014
4.1.3 Consumer protection: Provision of mechanisms for addressing of grievances related to spurious, expired and inappropriate drugs. (See Section 5)	Drug Inspectorate, Regulatory Authority	Consumer grievance system in place: 2013
4.1.4 Technical enhancement of drug testing: Re-opening of Central Drug Testing Laboratory and upgrading of the provincial laboratory for full range of drug testing, building a system of periodic updating and validation of equipments; and external quality checks.	Drug Inspectorate, NIH, WHO	Technical Enhancement of Drug Testing completed: 2014

Strategy 4.2: Reduction in OOP Expenditure on drugs

Key Issues: 53% of Total out of Pocket Expenditure is spent on drug purchase. Even low technology care such as pregnancy care visits and hypertension consultation at primary care level result in high OOP costs. These are seen at both public and private facilities, and are due to non-availability of drugs at public sector and Polypharmacy and use of originator brands in private sector.

Strategic Actions	Stakeholders	Key Performance Indicators
4.2.1 Reduction of OOP at government facilities: • Increase of operational budget non-salary allocation to 50% of operational budget with ring-fencing for essential drugs on provincial formulary. (Refer to Section7) • Reduction of pilferage (See 4.3) and enforcement of generics uses (See 4.5)	Secretariat, Teaching Hospitals, Directorate, Municipal Directorate Refer to Strategic Objective 1a and 7	8
4.2.2 Reduction of OOP at private facilities: • Introduction of commodity vouchers for NCDs, pregnancy care and child care in low income areas of townships to be linked to prescriptions from accredited/ franchised private providers. Provision of technical assistance for calculation of voucher cost, voucher distribution and redemption system, and identification. (Refer to Section 7) • Rational drug use practices (See Section4.5)	Refer to Strategic Objective 1 b	Financing measures in place in selected PPPs: 2018
4.2.3 Reduction of Catastrophic expenditure on Drugs • Introduction of health equity funds at public sector hospitals and accredited non-profit hospitals by tapping into zakat, bait-ul-mal, corporate and philanthropic funding.(Refer to Section 7)		Health Equity funds in place in identified Teaching Hospitals: 2014

Strategy 4.3: Strengthen management of drug supplies in public sector so as to improve availability of quality drugs and improve accountability.

Key Issues: Supply management within the public sector is poor with availability of essential acute care medicines at 30-67% and essential chronic care drugs at 3-57%, purchased drugs are of low quality, and there is poor accountability in stock management.

Strategic Actions	Stakeholders	Key Performance Indicators
4.3.1 Centralized and Quality based procurement: • Establishment of provincial tendering system to replace district based tendering system for frontline facilities, THQs and DHQs, and reduction of local purchase at district level to 20% of drug budget • Introduction of both product and producer quality threshold to PPRA rules for procurement in addition to registration of producer as currently practiced ; direct purchasing from vendors rather than dealers; and introduction of pre-qualifications of vendors through GMP audits to be out-sourced to external agencies until trained staff developed. • Training and technical support of Procurement Cell on drug selection process, inclusion of experts in procurement and periodic audits for Public Accounts committee • Institution of procurement committees for all Tertiary Hospitals and Civil Hospitals, formation of standard TORs and specification of members including hospital pharmacists and clinicians, and regular process of external audits.	Procurement Cell, Technical Agency, Public Accounts Committee, Pharmacy Directorate	50% of major public sector hospitals and 100% of districts following quality parameters for procurement : 2014
4.3.2 Scientific Drug Management • Linking forecasting of drugs for procurement with morbidity reports generated through DHIS, HMIS/ or manual morbidity compiling. • Establishment of Drugs and Contraceptives Management Information System to monitor and reduce stock-outs, minimize leakages and pilferages. • Periodic audit of drug storage at district and municipal levels, implementation of quality checklists for drug storage and training of staff.	Technical Agency, Pharmacy Directorate, Procurement Cell, Teaching Hospitals, District Health offices, DHQs	Logistic Management Information Systems in place in all districts: 2015

Strategy 4.4: Plug deficiencies in production, deployment and training of pharmacists.

Key Issues: Pharmacist production continues to be extremely low across the sector at 1:7166 population compared to recommended ratio of 1:2000, 70% of pharmacists produced are working in industry rather than in service delivery, and are particularly lacking in public sector hospitals.

Strategic Actions	Stakeholders	Key Performance Indicators
4.4.1 Optimal production of pharmacists: • Increase in seats of pharmacists in existing accredited pharmacy colleges. • Provision of incentives for establishment of new colleges. • Introduction of curricular improvements in line with recommendation from clinical managers and pharma experts.	Pharmacy Colleges, Pharmacy Council, WHO, IHP	To achieve a pharmacist: population ratio of 1:4000:2016 To establish 1 hospital pharmacist per DHQ and 1 per 100 beds in Teaching Hospitals: 2016
4.4.2 Measures for deployment of pharmacists • Establish a cadre of Hospital pharmacists with minimal number of 1 hospital pharmacist per DHQ/ Civil Hospital, and 1 pharmacist per major specialty for Teaching Hospitals; and introduction of appropriate career ladder. • Provision of administrative grade and pay scale in line with medical profession • Provision of certified short training to pharmacy graduates on hospital pharmacy, management and quality assurance in collaboration with external institutions.	Pharmacy Directorate, WHO, IHP Pakistan Association of Hospital Pharmacists	
4.4.3 Training of pharmacists • Provision of certified trainings to pharmacists in both public and private sector on hospital and community pharmacy	Pharmacy Directorate	To train 80% of licensed pharmacists : 2020

Strategy 4.5: Promote multi-pronged strategies for rational use of drugs, including promotion of generics, reduction in poly-pharmacy and improving drug dispensation practices.

Key Issues: Drugs are largely irrationally used by health providers with unnecessary number of drugs per prescription, excessive use of expensive originator brands and high use of injections. Most frontline practitioners are not complying with standardized disease management protocols. Community pharmacy has not been well established with drug outlets unmanned by pharmacists resulting in unchecked dispensing and purchase of drugs by consumers

Strategic Actions	Stakeholders	Key Performance Indicators
Promoting Rational Prescription **4.5.1 Regulatory Measures** • Constitution of Sindh Drug Formulary Committee involving clinicians and pharmacists from public and private sector for rationalization of national formulary and annual process of updating • Dissemination of provincial formulary for enforcement across public and private sector • Restriction on dispensation of third generation antibiotics and similar advanced drug products on prescriptions of hospital based specialists • Market surveillance of drug outlets and prescription practices to verify availability and use of standard generics	Director General Health, WHO Hospital Pharmacists Association, expert clinicians, Pharma Directorate,	100% of DHQs and 50% of Teaching hospitals compliant with formulary based procurement : 2014 2 periodic rounds of market surveillance completed : 2017
4.5.2 Community Pharmacy • Micro-credits incentive provided to licensed pharmacists for establishment of community pharmacies to improve rational drug purchase by consumers.	Pharma Directorate	1 pharmacy per union council: 2020
4.5.3Skill building of practitioners • Certificate trainings of GPs on standard generic drug protocols for priority diseases: hypertension, diabetes, COPD, tuberculosis, ARI & pneumonia, typhoid, malaria, common skin problems, depression & anxiety. • Certificate trainings of General Cadre posted in municipalities and district health systems on standard generic drug protocols for propriety diseases: hypertension, diabetes, COPD, tuberculosis, ARI & pneumonia, typhoid, malaria, common skin problems, depression & anxiety. • Assimilation of standard drug protocols and awareness on generic medication in undergraduate medical curriculums. • Training of dispensers for improvement in drug preparation and dispensing practices.	CPSP, Family Planning Association of Pakistan, private sector institutes, UN agencies, Pharma Directorate.	20% of registered GPs and 50% of government general cadre staff trained in standard drug regimes: 2017

Strategy 4.6: Develop a central body for pharma functions integrating and enhancing existing functions being undertaken by Drug inspectorate, quality Assurance and Training units

Key Issues: The DOH lacks a single entity that can bring together the drug regulatory and drug management functions, reporting of pharmacists is to clinicians, and there is no career ladder for pharmacists. There is also lack of a larger provincial forum for consultation and dialogue between public sector, private sector, consumer representatives and industry.

Strategic Actions	Stakeholders	Key Performance Indicators
4.6.1 Focal body within DHO: setting up a Pharma Directorate comprising of key essential units including Drug inspection, Drug Testing, Training, Hospital pharmacy, Logistic Management system, and specification of organogram, staffing, key functions etc. Provision of a separate budget and fund flow system for Pharma Directorate and budgetary enhancement in line with expanded functions	Secretariat	Establishment of Pharmacy Directorate: 2013
4.6.2 Capacity building of Drug Inspection Unit and Quality Assurance Unit in terms of training and staff through external links to NIH, International Health Partnerships, and other institutions.	WHO, IHP	Capacity building TA completed: 2015
4.6.3 Higher Provincial Body: Provincial Setting up of a Provincial Standing Committee on good practices in pharmaceutical sector, having wide ranging representation from notable private sector providers, notable public sector providers, PMA, Pharma Directorate, Pharma Bureau, PPMA, CSOs, increase consultation and coordination	Pharma Directorate, Pharmacists Association, PMA, Pharma Bureau, PPMA, WHO, CSOs	Establishment of Provincial Committee on Good Practices: 2012

5: REGULATIONS

Outcome 5: Regulate the health sector in particular the extensive private sector towards licensed practice, standardization of care, minimal reporting requirements and address of medical negligence.

Strategy 5.1: Establish a Regulatory Authority and develop systems for licensing and registration of private health providers and outlets

Key issues: Despite an entrenched private sector, Sindh Province lacks a regulatory authority ith the result that regulatory efforts are minimal and fragmented. So far the Sindh Blood Regulation authority is the only regulatory health authority with mandate to license blood banks across public and private sectors. Drug inspectorate is empowered to check pharmacies however paradoxically it does not have licensing authority which rests with District Health Officers and has given rise to proliferation of shadow pharmacies. There is lack of information on licensed private practitioners and no mechanisms for registration. In 2011 registration law made by the city district government Karachi (CDGK) was notified for registration of private providers however its implementation was aborted due to non-response by private practitioners and interference of influential vested interest groups.

Strategic Actions	Stakeholders	Key Performance Indicators
5.1.1 Establishment of a Regulatory Authority: autonomous body reporting to Secretary Health and high provincial board under Governor, representation of experts from medical, pharma, environment, legal sectors. Comprising of multiple units: private practices; laboratories and diagnostics; blood banks ; pharmacies; consumer protection and environment.	Technical Agency, experts, HSRU	Establishment of Regulatory Authority: 2013
5.1.2 Private practitioners: Survey on minimum quality standards in private sector Developing a database of licensed private practitioners in each district/ township Development of minimal service delivery standards, registration of private practitioners with Sindh Regulatory Authority for Health based	Regulatory Authority, Technical Agency	Database of licensed private practitioners in place :2014 Registration of

		80% of private practitioners: 2020
5.1.3 Laboratories & diagnostic centers: Development of minimal service delivery standards for; registration with regulatory authority biannual surveillance.	Regulatory Authority, Technical Agency	Registration of 80% of laboratories / diagnostic centers: 2020
5.1.4 Drug outlets: Rationalization of excessive number of drug outlets through increasing quality threshold for registration, and shifting of licensing from DHOs to Regulatory Authority.	Regulatory Authority, Technical Agency	Registration of 100% of drug outlets: 2014
5.1.5 Consumer Awareness: Raising of consumer awareness on licensed practices and diagnostics centers through links with consumer protection bodies, media and citizens groups	Regulatory Authority, Technical Agency	Development of consumer awareness plan : 2014
5.1.6 Legislation: Review, amendment and notification of Private for profit and non-profit licensing bill drafted and submitted Sindh Assembly	Regulatory Authority, Technical Agency	

Strategy: 5.2: Provide incentives for self accreditation of private providers and implementation of standardized services in major urban areas

Key issues: Traditional punitive styled regulation has not been successful in Pakistan however self accreditation is gaining popularity globally in market styled economies. Self accreditation for NPOs has been initiated in Pakistan but due to high expense is limited to larger NPOs. Government subsidized and more cost effective means are needed to extend self accreditation to larger NPO sector and also make it available for commercial private sector. Standardization of disease management is being provided by vertical programs but need extension to private sector.

Strategic Actions	Stakeholders	Key Performance Indicators
5.2.1 Accreditation for Private for Profit Provider Undertaking of required CME Minimal acceptable service delivery standards	Regulatory Authority, Technical Agency, Private providers	25% of licensed private providers of all districts undergo accreditation:2020

Strategic Actions	Stakeholders	Key Performance Indicators
5.2.2 Accreditation for NPOs Undertaking of required CME Minimal acceptable service delivery standards Compulsory provision of MSDP and EPHS at subsidized price ceiling Free provision of care to at least 10% of inpatient admissions	Regulatory Authority, Technical Agency, NPOs	50% of health NPOs in all districts undergo accreditation:2017
5.2.3 Government support Provision of subsidized CME for private providers on MSDP/EPHS and medical ethics Social marketing of accreditation Web based easy to use self accreditation systems Franchising with accredited providers	CPSP, Social marketing firm, Technical Agency, Regulatory Authority	20% subsidy provided for basic CME package Self licensing web systems developed, commissioned and functioning: 2015

Strategy: 5.3: Enhance accountability for medical negligence and consumer support mechanisms.

Key Issues: Despite a comprehensive Consumer Protection Ordinance promulgated in Sindh in 2007, the enforcement mechanisms and avenues are yet to be put in place for the health sector. There is lack of a clear reporting and redress system for medical negligence and awareness of consumer rights is low. Consumer satisfaction is rarely monitored by either the public or private sector.

Strategic Actions	Stakeholders	Key Performance Indicators
5.3.1 Raise provider awareness on medical ethics Provision of basic certificate training on medical ethics to all public sector tertiary hospitals and major secondary care hospitals Mandatory medical ethics certificate training from recognized institutes for all private sector hospitals	CPSP, reputable institutes Regulatory Authority	All major public sector hospitals have completed foundation training in medical ethics:2016

Strategic Actions	Stakeholders	Key Performance Indicators
		sector hospitals have completed certification course on medical ethics: 2016
5.3.2 Raise consumer awareness of medical rights Establish a consumer protection network Display of basic patients rights in health facilities Consumer help lines and information centers managed by non-profit citizens groups	Regulatory Authority, Citizens' Consumer Protection Bodies	Consumer awareness help lines in place in all major public sector hospitals:2016
5.3.3 Enhance accountability mechanisms Formulation of Health Legislature to govern the provincial health sector (both private and public) Introduction of citizens bodies in major public sector hospitals for investigation of patient complaints (Refer to Strategic Objective 6) Mandating provision of emergency measures for patient stabilization prior to transfer to public sector hospital for non-affording patients.	Regulatory Authority, Legal Consultants, PPP Hospital Boards	

Strategy: 5:4 implement a mechanism of minimal reporting from private for profit and NPO providers.

Key Issues: Disease surveillance systems are largely concentrated on the public sector leading to serious under-reporting of notifiable communicable diseases by private sector. Existing disease surveillance systems are fragmented being managed by different vertical programs and concentrate on communicable diseases. Trauma, NCDs and resulting fatalities lack any tracking systems leading to gross underestimation. A successful pilot on injuries data is already in place in Karachi but scaling up efforts are needed.

Strategic Actions	Stakeholders	Key Performance Indicators
5.4.1 Information pooling system for reporting of fatalities and notifiable diseases, across public and private health sector, inclusive of key communicable diseases under eradication such as Polio, leprosy; communicable high risk diseases such as HIV, Hepatitis B&C), NCDs such as injuries, attempted suicides, cancers, and major outbreaks. (See Section 6)	HSRU, Vertical Programs, Regulatory Authority, M&E Unit	Data pooling system extended to all tertiary public sector hospitals and all tertiary private hospitals: 2015
5.4.2 Development of a single disease surveillance system for implementation across public and private sector. (See Section 6)		Integrated Disease surveillance systems in place: 2014

Strategy: 5:5 Develop focal multi-sector strategies for ensuring healthier environment

Key Issues: The existing inequities in access to water supply and sanitation, clean air and hygiene and access to clean food are due to non-compliance to the regulations. The pollutants in air, land, water, the emission of industrial and nuclear effluents or wastes alter the chemical, physical, biological, radiation, thermal or radiological, aesthetic properties of the air, land or water are detrimental to health. The notified regulations on environment protection and food laws notified as the Sindh Consumer Protection Ordinance 2007 and Pure Food Ordinance 1960 respectively have an important relevance to health indicators. Moreover important meticulously drafted legislations are pending hearing in the Parliament.

Strategic Actions	Stakeholders	Key Performance Indicators
5.5.1 Ensure safe disposal of hospital wastes including used disposable syringes and needles, reagents from the diagnostic laboratories and biomedical waste 6.5.2. Development of legislation to promote safe behavior, health environment in participation with other entities within DOH such as NCD Commission, vertical programs as well as other allied departments such as labor, industry, agriculture, environment etc. See Section 3.	Regulatory Authority, NCD Commission, Vertical Programs Local government, Environment Protection Agency, Dept of Agriculture, Dept of Labor,	Incinerators deployed in Civil Hospitals and DHQs of all districts

6. GOVERNANCE

Outcome 6: To respond to the stewardship and governance needs of health sector in the post 18th amendment devolution context, and also improve efficiency and transparency of existing functions.

6.1 Strategic Establish stewardship function of Secretariat for strong and effective steering of public and private health sector.

Key Issues: The DOH has been traditionally designed for direct service delivery using a uniform service delivery model across Pakistan. Sectoral planning, regulation, public private partnerships, and monitoring & evaluation are new areas that are neither structurally reflected nor for which prior training and experience has been imparted to DOH staff.

Strategic Actions	Stakeholders	Key Performance Indicators
6.1.1 Functional enhancement of stewardship role: Secretariat as policy and decision making arm with service delivery delegated to DGHS Function enhancement in following key areas: • Human Resource production (BS-18 and above) • Preparation of Annual Operational Plan • Budget allocation and releases to tertiary care facilities and districts, • Interface with private sector • Preparation and implementation of PPP Framework • Oversight on M&E • Health sector regulation; • Communication and Media	Technical Agency, HSRU, Secretariat	Restructuring plan formalized by: 2012

6.1.2 Information databases Develop links to monitoring, evaluation and surveillance systems (See 7.5)	Technical Agency, HSRU, Secretariat	Capacity building TA completed:2016
6.1.3 Capacity building Provide planning tools and software Provision of training on key areas such as leadership, governance, financing, reforms etc Hiring of expertise on Market Pay Scales	Technical Agency, HSRU, Secretariat	

6.2: Strategic Enhance visibility of Directorate in Implementation and oversight of district health services

Key Issues: Role of Health Directorate and the PHDC over the years has become less clear with poor use of assigned resources despite vast oversight and training needs of district health systems. Clear role definition and accompanying capacity building is needed.

Strategic Actions	Stakeholders	Key Performance Indicators
6.2.1 Functional enhancement of service delivery role: Review of DGHS for assessing their role, capacity, financing requirements for function enhancement in following key areas: • Monitoring of services at primary and secondary level care • Approving district annual plans • Technical and administrative support to districts • Performance management of vertical programs • Procurement of medicine and supplies		Capacity building TA completed: 2015
6.2.2 Information databases Use of DHIS for monitoring		Restructuring plan formalized by: 2012
6.2.3 Capacity building Training in key areas of service delivery programming, service management, budgeting, monitoring, drug management etc.		

6.3: Strategic Functional and structural integration of programs having common outcomes for increased efficiency.

Key issues: At present there are nine vertical programs in Sindh with parallel resources, planning, and delivery and monitoring, however there still remain considerable gaps in coverage, highlighting need for pooled efforts. On the pharmaceutical side, there is lack of a cohesive body and budget and functions also need enhancement. The urban public health systems functioning in major cities of Karachi and Hyderabad, is fragmented comprising of facilities of different departments, non-standardized service packages and similarly lacks a central cohesive body for effective management.

Strategic Actions	Stakeholders	Key Performance Indicators
6.3.1 Integration of Vertical Program Merger of 9 vertical programs into 2 vertical programs: i)MNCH-Nutrition and ii) Communicable Diseases : • Integration of monitoring frameworks, resources and management • Role limitation to technical design, surveillance, monitoring and training • Revitalization of Health directorate and placing monitoring and supervision of programs in subunits	Technical Agency, HSRU, Secretariat, Vertical Programs	Restructuring plan formalized by: 2012
6.3.2 Integration of DOPW with DOH Service delivery provision and accompanying resources shifted to DOH DOPW role rationalized to awareness generation and contraception surveys	Technical Agency, HSRU, Secretariat, DOPW, P&D Department	Capacity building TA completed: 2016
6.3.4. Integrating public sector delivery in major urban areas Establishment of Urban Health Directorate under the DGHSS integrating local government and DOH administered facilities.	Technical Agency, HSRU, Secretariat, District Health Offices of Karachi & Malir, Local Bodies Dept	Restructuring plan formalized by: 2012
6.3.5 Establishing focal hub for integrated pharma management Establishment of Pharmacy directorate integrating quality assurance and drug inspectorate and enhancing pharma regulation functions.	Technical Agency, HSRU, Secretariat, Quality Assurance, Drug Inspectorate, Procurement Cell	Restructuring plan formalized by: 2012

6.4: Strategic To establish a multi-stakeholder Provincial Health Commission on Non-Communicable Diseases focal body in the Province for technical guidance on control of NCDs across the health sector in Sindh.

Key Issues: At present there is neither a strategy for NCDs nor a focal body to provide strategic direction and oversight. A multi-stakeholder body is needed to provide a broad range of inputs and forming partnerships for addressing this challenging issue. A concerted and comprehensive approach needed to move away from adhoc tertiary investments to proven cost effective measures for NCD control at all levels of the health system and evidence based and transparent.

Strategic Actions	Stakeholders	Key Performance Indicators
6.4.1 Establishment: Notification with budgetary support of Sindh Commission on Non-Communicable Diseases having a central body and comprised of 6 units including: Ischemic Heart Disease, Diabetes, Trauma, Mental Health, Occupational Health, and Cancers. **Composition:** Permanent Secretary from DOH and area experts from both public and private sector experts in Ischemic Heart Disease, Diabetes, Trauma, Mental Health, Occupational Health, Cancers; and relevant departments such as Environment Protection Agency, Education, Local Government , Industry etc.	Additional Secretary Technical, Experts from public and private sector, Environment Protection Agency, related departments of Youth, Education, Industry	Notification and setting up of Task Force with budgetary provision: 2012

6.4.2 Tasks: To provide overall evidence based strategic direction and oversight for NCD Control with particular reference to the following key areas - i) undertake burden of disease for NCDs - development of service package development at primary and secondary levels, with specification of training requirements for health workforce and infrastructure specification - ii) development of behavioral change strategy for lifestyle change - iii) stipulation of data needs identifying minimal indicators for NCD surveillance, mechanisms for collection of population based data and database sharing between major health institutions - iv) recommendations for key legislative and regulatory action - v) specifications of key inter-sectoral support		Population based data collection on minimal NCD indicators: 2013 (See below) Proposals on service delivery, lifestyle and legislative actions: 2013
6.4.3 Financial Allocation: Provision of annual seed grant by DOH and supplementation with revenue generation by from philanthropic sector, corporate sector, international agencies and earmarking, and sustainable measures such as earmarking of tobacco excise.		Matching government : private sector support of 1:3

6.5: Strategic Establishing PPP Framework and re-working modalities for PPHI

Key Issues: Sindh has the most vibrant private sector in Pakistan however there is no strategy for PPPs. Existing PPPs have primarily involved one model that of using philanthropic funding for public sector facilities which needs sustainability and accountability mechanisms, while other models have not been applied. The PPHI has shown positive advances in BHU functionality and utilization PPHI contracts are not open to competition with other providers (including DOH), lack performance based targets. Furthermore there is no strategy for focusing on low performing facilities but PPHI contracting is instead implemented across as a blanket strategy for BHUs across all districts.

Strategic Actions	Stakeholders	Key Performance Indicators
6.5.1 Revise contracting design of PPHI • Confinement of PPHI to identified non-functional frontline facilities • Provision of performance based targets and administrative control over outreach • Open up management contracts to NPO sector for competitive awards • Independent contract purchasing agency for all PPP contracts, including PPHI	HSRU, Secretariat, Planning & Development	Design of new PPHI modalities for implementation after lapse of existing contracts: 2013
6.5.2 PPP Framework: Development of PPP Framework for partnership involving i) planning ; ii) concessions; iii) purchasing; iv) human resource production/ training; v) data sharing; vi) research . Setting up of joint forums : Sindh Health Task force; NCD Commissions; government –philanthropic body for joint financing. Tracking and harmonizing financial contribution by private sector	Technical Agency, HSRU, Secretariat	PPP Framework developed: 2012

6.6: Strategic Establishing a well designed and integrated functional Monitoring and Evaluation Mechanism

Key Issues: At present there is non-availability of coherent M&E mechanism, several monitoring systems are in place mainly focusing on inspections and periodic reports of programs and facility. Third party assessments and public audits are also lacking. There is also absence of work culture to utilize information for decision making.

Strategic Actions	Stakeholders	Key Performance Indicators
6.6.1 Establishment of a M&E Framework Establishment of a M&E Unit at Secretariat	Secretariat, Technical agency	M&E Unit established: 2012
6.6.2 Facility based routine monitoring Roll out of DHIS to all frontline and secondary facilities in all districts Piloting of hospital management information system at major teaching hospitals	Directorate , Teaching Hospitals, M&E Unit	District health have 80% reporting rate for DHIS Hospital MIS pilot completed
6.6.3 Sector wide reporting Development of single comprehensive disease surveillance system Information pooling database for fatalities and major health issues between tertiary public and private sector institutions Conduction of Population based NCD survey	Vertical Programs, NCD Commission M&E Unit	Reporting on surveillance system:2015 Information pooling database set up NCD survey completed 2012
6.6.4 Independent third party assessments of health initiatives 6.6.5. financial audits & expenditure tracking (Refer to Section 7)	Independent Monitors, M&E Unit	Single disease surveillance system in place:2014

6.7 Strategic Establish hospital autonomy pilots for major tertiary hospitals / specialist while building in social accountability and transparency and pro-poor protection measures.

Key Issues: Over centralization of administrative and financial authority has often impeded efficient delivery in public sector hospitals. A handful of successful and popular hospital autonomy pilots are in place in Sindh, however accreditation criteria and accountability mechanism are lacking. Scientific pilots based on best practices can be piloted for major tertiary hospital.

Strategic Actions	Stakeholders	Key Performance Indicators
6.7.1 Conduct an initial assessment of gaps in autonomy status Comprehensive design prepared for phasing in of autonomous hospitals	Technical agency Secretariat, Teaching Hospitals	Detailed plan developed for hospital autonomy: 2013
6.7.2 Accreditation mechanisms established for large tertiary hospitals and specialized units hospitals	Accreditation Agency, Secretariat, Teaching Hospitals	Hospitals meeting accreditation included for pilot
6.7.3 Administrative and financial powers deconcentrated based on clear guidelines and free service provision for poor	Technical agency Secretariat, Teaching Hospitals	10% of institutions included for pilots: 2020
6.7.4 Periodic accountability checks	Technical agency Secretariat, Teaching Hospitals	

6.8: Strategic To improve accountability in health service delivery by enhancing internal controls and establishing social accountability mechanisms

Key Issues: While a process of audits in well institutionalized in public sector its implementation needs to be reinforced. Social accountability has had an abortive attempt at institutional of hospital boards and needs to be effectively re-started.

Strategies	Stakeholders	Key Performance Targets
6.8.1. Establishment of Sindh Health Task Force having multi stakeholder composition to provide oversight on sector strategy implementation.	Secretariat, P&D Dept	Sindh Health Task Force established: 2012
Constitution of district and municipal level committees having composition of local civil society members, and representatives from local bodies, DOH and related sectors to provide social accountability.	Secretariat, major hospitals	80% of districts and municipalities have Citizens oversight bodies by 2020
Constitution of Health Boards in tertiary hospitals with gradual expansion to DHQs to oversee: utilization of hospital budget particularly user charges, medical negligence cases, service standards	Secretariat, THQs and RHC representatives	100% of Teaching hospitals & DHQs have a functional health board: 2020
Introduction of transparency measures such as Public expenditure tracking system (PET), Citizen report card surveys, Process Reviews and Appraisals, Internal audits		Package of transparency measures in place at provincial level: 2016

7: HEALTH SECTOR FINANCING

Outcome 7: Increase investment in health sector and shift towards innovative financing systems to reduce OOP expenditure in the poor.

Strategy 7.1: Increase total investment in the health sector, increasing public sector expenditure and effectively harnessing funding from private sector and international organizations.

Key issues: Only 4% of public sector budget in real terms is spent on the health sector. Sindh has the highest concentration of philanthropic health organizations as well as mandatory contribution by corporate sector but there is lack of estimate of total outlay and absence of harnessing mechanisms. Sindh has the lowest share of health investment by international donors amounting to only 0.1% with no major initiative since 1990s.

Strategic Actions	Stakeholders	Key Performance Indicators
7.1.1 Public sector: Increase health expenditure by public sector to 10% in real terms of total provincial expenditure inclusive of both operational and development funding Increase existing share of operational expenditure of total public sector expenditure	Secretariat, Finance Department	Health expenditure by public sector reaching 10% of total provincial public sector expenditure: 2020
7.1.2 Private sector: Setting up a PPP forum comprising of private philanthropic and corporate sectors for coordinated investment into HSS and identification of areas with sustained funding Tracking of corporate sector mandatory contributions and channelizing funding for coverage of health care of temporary workers, occupational health measures, equity funds and other key priority areas of HSS (Refer also to Strategic Objective 7) Joint monitoring body on agreed performance indicators results with private sector investors	Secretariat, HSRU, private sector representatives	Matching philanthropic contribution ratio of 1:10 to governmental funding
7.1.3 International donors: Setting up a unit for coordination with donors for investment into HSS. Diversion of donor funding to priority development needs as identified by HSS such as capacity development, technical assistance, monitoring and evaluation, and operations research.	Secretariat, HSRU, international donors, UN agencies	Raising donor contribution to matching 20% of

Joint monitoring body on agreed performance indicators.		total public sector expenditure

Strategy 7.2: Increase investment in provision of primary care and essential secondary referral care

Key Issues: PHC has seen little increase over the years and the increases given have been consumed to offset staff salary increase while operational expenditure remains at 17-25% of budget. Allocation of development expenditure at both provincial and district level is heavily tilted towards facility construction which has high operational cost implications for coming years.

Strategic Actions	Stakeholders	Key Performance Indicators
7.2.1 Investment in District Health System: • Budget enhancement based on minimal per capita spending for development of district budgets • Earmarking 50% of district operational budget for non-salary expenditures • Topping up of district budgets with performance based awards • Transport vouchers for emergency referrals in rural areas • Confined management contracts in districts for poorly performing facilities with continued free provision of services to population • Initiation of GP and NP franchising in for urban PHC with provision of free health cards for the lowest two income quintiles for free / subsidized services	Secretariat, Finance Department	Non-salary budget increased to 50% of total operational budget in all districts: 2020 For details on vouchers, health cards etc see Section 1a &b.
7.2.2 Initiating Recoveries (Refer to Section 1b) • Diversion of development funding on facility construction and tertiary care towards district health systems • Establishment of user charges at 1/3 to 1/4 of market rates on diagnostic and selected services for local retention at facility level. • Harnessing of philanthropic and corporate sector funding for primary and secondary care •	HSRU, Financial Firm, Municipal Directorate	

Strategy 7.3: Reduce OOP expenditure on medicines especially for chronic diseases through multi-dimensional initiatives.

Key Issues: Households in Sindh annually spend 53% of OOP on purchase of medicines. This is driven by prescription of unnecessary medications and use of originator brands in both private and public sector calling for measures on rational drug use. Low availability of medicines at public sector facilities also results in high OOP. Affordability index is lowest for chronic care drugs with even standard therapy based on low cost generics being unaffordable for the poor.

Strategic Actions	Stakeholders	Key Performance Indicators
7.3.1 Increasing drug availability Increasing drug availability through increased operational budget in public sector facilities across all districts Provision of commodity vouchers through franchised GPs for pre-paid purchase of standardized drug regimen for in urban PHC system	HSRU, Voucher Management Agency, Municipal directorate, NCD commission	As in Strategic Outcome 1
7.3.2 Use of generics Provide training, formulary linked purchases, and limiting off the counter purchases to reinforce use of low cost generics in both public and private health sector : (Refer to Section 4)	HSRU, Pharmacy Directorate, Procurement Unit	As in Strategic Outcome 4

Strategy 7.4: Reduce catastrophic OOP expenditure through introducing Health equity funds and Community Pre-Payment Schemes for the poor.

Key Issues: Poorer households spend a greater proportion of income on health care are in event of emergency at risk of catastrophic expenditure, taken as >40% of non-food spending on health, triggering a cycle of debt and poverty. Limited social safety nets for the poor exist in the form of Zakat, Bait-ul Mal and philanthropic funding but efforts are fragmented, need improved transparency and greater investment.

Strategic Actions	Stakeholders	Key Performance Indicators
7.4.1 Health Equity Funds: • Establishment of a single Health Equity fund at major tertiary hospitals with pooling in of all contributions from philanthropic sector, Zakat and Bait-ul Mal. • Clear demarcation of beneficiaries based on priority needs identified by HSS; efficient running mechanisms and preference to those referred from government financed urban PHC and district health systems. • Increased accountability through involvement of Hospital citizen Boards in oversight of HE funds, periodic financial audits and public disclosures of funding.	HSRU, Technical firm, Tertiary hospitals, philanthropic sector	Design of HE fund completed: 2012 Pooled Health Equity Fund in place in DHQs and Teaching Hospitals of all districts: 2014
7.4.2 Community pre-payment schemes for poor: • Pilot community pre-payment scheme for risk pooling on EmONC, trauma and emergency care for key NCDs for households in selected townships	HSRU, Municipal Directorate, Insurance firm	Implementation of pre-payment pilot for emergency hospitalizations: 2014

Strategy 7.5: Increase efficiency and performance of government financial systems

Key Issues: Financial systems within the Health Department are input based however the DOH has been selected by Department of Planning & Development as one of the departments for implementation of output based systems. Further roll out of such systems is needed at district level. Utilization of allocated funding is sub-optimal especially for vertical programs and development project due to excessive centralization and lack of budget review systems. Budget development for districts also needs scientific alignment in line with annual targets.

Strategic Actions	Stakeholders	Key Performance Indicators
7.5.1 Provincial level • Introduction of Program Based Budgeting as medium term budgetary framework at provincial level • Reduce discretionary funds and block allocations • Improvement of fund release and utilization mechanisms for all districts and Teaching hospitals Annual budgetary performance review. • Periodic audit reports for all major development projects and PPPs.	Secretariat, Finance Department, Technical Agency, Public Accounts Committee	Completion of Program Budgeting at provincial level: 2015
7.5.2 District level • Introduction of Output Based Budgeting as medium term budgetary framework in selected disadvantaged districts and Municipal Directorate • Development of annual district/ municipal plans to synchronize with annual budgetary cycle. • Scientific forecasting of supplies based on use of DHIS/ DEWs/ Logistics Management systems. • Reduction in local purchase allowance for drugs to 10% for district health systems	HSRU, Finance Department, Technical Agency, Public Accounts Committee	Completion of Program Budgeting in all districts: 2020

Strategy 7.6: Increase efficiency through reducing overlaps across programs, reducing overlaps with private sector and removal of redundancies

Key Issues: The health sector is faced with gross inefficiencies in several areas. There are 9 vertical programs having parallel resources and strategies despite having common terminal outcomes resulting in efficiency losses. Inefficiencies are also seen with regard to population control as DOPW is only a minor provider of contraceptives services in the Province and its mandate needs to be reviewed with integration of entire department into DOH or at least of the service delivery component. The existing district health system is ambitiously and inappropriately designed for local context with excessive number of health facilities and managerial posts which require rationalization and reinvestment of funds towards outreach services. Furthermore, public sector investment in facility construction needs urgent review for financial implications and rationalization. Facility construction has also further increased overlaps with private sector and resulting inefficiencies across the health sector.

Strategic Actions	Stakeholders	Key Performance Indicators
7.6.1 Programmatic Integration • Integration of management and resources of those vertical programs having common outcomes (Refer to Strategic Objective 7) • Integration of Local Government and DOH facilities primary and secondary facilities into one Municipal Directorate (Refer to Strategic Objective 7) • Integration of DOPW into MNCH-Nutrition Program of DOH (Refer to Strategic Objective 7)	HSRU, Technical Agency, Planning cell, Finance Department	Integrative restructuring completed : 2013
7.6.2 Rationalization of redundant posts and facilities • Abolishment of health posts and dispensaries cadre with • Rationalization of redundant posts at DHO office and Taluka hospitals.	HSRU, Directorate, Planning Cell, Finance Department	Redundant posts and staff reviewed and adjusted: 2013
7.6.3 Reducing overlaps with private sector • Reduction in capital investment with move to purchasing from NPOs and GPs. • Contracting out of non-functional facilities in selected districts based on performance based targets (Strategic Objective 1)	HSRU, Planning Cell, Finance Department, Selected districts	Reduction of capital investment by 60%: 2017

4. MONITORING AND EVALUATION FRAMEWORK

4.1 MONITORING & EVALUATION REQUIREMENTS

A result oriented M&E Framework is vital to ensure transparent implementation, meeting of goalposts, improving budget utilization and making timely adjustments to strategy actions for enhancing results. Existing monitoring is usually input oriented, desk based, makes little use of existing information systems such as HMIS, DHIS and DEWs and lacks independent third party assessment. There are also too many parallel vertical MIS but lack of a single integrated disease surveillance system.

M&E Unit: Ongoing capacity building and financial investment in monitoring and evaluation systems will be required for strategy implementation. A permanent unit needs to be established in the Secretariat with flow of information from Directorate, Tertiary hospitals, Disease Surveillance Systems and Independent Monitors. The unit can be placed under the HSRU or separately set up within the Secretariat. The purpose of the M&E unit will be to monitor implementation of HSS Sindh and also streamline data collection needs across the sector. A result oriented monitoring plan is required as roadmap.

M&E Framework: An M&E framework is presented here for the period 2012 to 2020. It proposes sector wide monitoring on the 7 Strategic Outcomes based on Key Performance Indicators and linked to achievement of Millennium Development Goals for Pakistan. Implementation of the framework will build upon existing MIS systems of DHIS and DEWS, data pooling from private sector and independent validation.

Major Indicators	Existing	MDG Target
Infant Mortality Rate	53	40
Fully immunized children	51%	100%
Maternal Mortality Rate	314	140
Skilled Birth Attendant Deliveries	42%	90%
Antenatal Care	70%	100%
Contraceptive Prevalence Rate	27%	55%
Underweight children< 5 years	40.5%	<20%
Food insecure households	72%	13%
HIV prevalence in risk groups (IDUs & MSMs)	7.5-26%	Reduced by 50%
TB cases detected and treated by DOTS	59%	85%

Malaria prevention and treatment coverage		75%
Gender Parity Index	0.54	0.94
Public sector utilization	22%	44%
Other key targets related to MDGs	**Existing**	**2020**
LHW Coverage	45%	80%
Health as proportion of public sector budget	4%	10%
Public Sector expenditure of Total Health Expenditure	32%	48%
OOP Expenditure of Total Health Expenditure	66%	50%

4.2 MONITORING AND EVALUATION MECHANISMS: The M&E Framework will involve both facility and population based monitoring mechanisms implemented across public and private sectors.

Public Sector Facility Based Monitoring

1. **DHIS:** DHIS needs to be rolled out to cover all districts and move from coverage of frontline facilities to DHQs. This will require investment in capital infrastructure and technical support and a regular sanctioned budget for DHIS. The DHIS is poorly utilized for decision making and requires to be linked to annual district work plans, district budgeting and procurements. Personnel Management and Training database of DHIS which are underused will be activated to track human resource placement and capacities.The DGHSSS needs to take lead in DHIS strengthening.
2. **Vertical ProgramMIS:** The 9 parallel MIS overburden reporting requirements and fragment information provided. MIS of vertical programs having similar objectives will be merged as part of integration exercise of vertical programs. Effective links are to be developed between vertical program MIS and DHIS to reduce duplications.
3. **MIS for Tertiary Hospitals:**Tertiary hospitals lack a computerized information systems leading to poor use of hospital data for management. A separate MIS for tertiary hospitals will be piloted and scaled up to cover all major tertiary hospitals. The reporting will be linked to the Central M&E Unit at the Secretariat. This will be further supported by clinical audits of specialties and Emergency and Trauma units

Private Sector Monitoring

4. **Institutional Data Pooling:** A data pooling systemswill be developed to link death registry data, ambulance records, and records of major public and private hospitals. It will build upon successes of the piloted collaboration for Injuries.

5. **Regulatory information on private providers:** A database of licensed providers will be developed and periodically updated. It will also maintain minimal reporting on key indicators from private sector.

Population Based Monitoring

6. **Single Disease Surveillance System:** Most vertical programs lack a comprehensive surveillance system and existing surveillance efforts are also duplicative across programs.An integrated surveillance system will be developed for key priority diseases, NCDs and outbreaks supported by properly trained epidemiologists, entomologists and laboratory at the provincial level, placement of district/city surveillance officers, and third party checks.
7. **Disease Burden Survey of NCDs:** NCDs are grossly underestimated and requires a comprehensive survey either conducted as a separate exercise or alternatively piggybacked on existing provincial and districts surveys such as PDHS and MICs.
8. **Population Based Surveys:** Data from periodic rounds of MICs, PDHS, and PSLM will be used to track performance.
9. **Independent validation**: third party validations will be built in to evaluate performance of specific strategic outcomes and will include balanced scorecard facility surveys, household surveys, KAP surveys of trained providers, market surveillance surveys for drugs, and performance assessments of Technical Assistance.

Financial Monitoring

10. **Provincial Health Accounts:** PHA for Sindh will be maintained and three yearly updated to keep track of overall spending on health in the Province and contributed expenditure levels by government, households and others sources.

11. **Internal Financial Monitoring:** Tracking of public sector expenditure on strategic outcomes and its performance will be through Program Based Monitoring, result based financing and financial audits.

MONITORING & EVALUATION FRAMEWORK

1a: STRENGTHEN DISTRICT HEALTH SYSTEMS

Strengthen district health systems in seven most under-developed districts of Sindh

Key Performance Indicator	Targets for 2020	Verification	
		Means	Frequency
1.1 a Roll out of Minimum Service Delivery Package provision in frontline public sector facilities with at least one MSDP providing facility per Taluka			
1.1.1 Detailed and costed rural MSDP package developed: 2012	1 MSDP package	TA Report	once
1.1.2 One MSDP centers functional in each Taluka: 2018	154 MSDP facilities	DHIS Balanced score card	Ongoing yearly
1.2 a Establish Essential Service of Health Package in DHQs for provision of essential secondary care provision linked to prioritized referrals from MSDP providing facilities			
1.2.1 Detailed and costed rural EPHS package developed: 2012	1	TA Report	once
1.2.2 EPHS centres functional : 2018	19 EPHS facilities	DHIS Balanced score card	Ongoing yearly
1.3 a Contract out facilities in remote talukas of disadvantaged districts to qualified private sector entities for publically financed provision of MSDP			
1.3.1 Contracting out of non-functional facilities in identified remote Talukas:2018	19	DHIS Balanced score card	Ongoing yearly
1.3.2 Performance assessment for re-bidding: 2016	1	Household Survey	once
1.4 a Implement enhanced and integrated community based package of services and expand service coverage measures			
1.4.1 50% increase in coverage of outreach services: 2017	22000 additional LHW/ multi-	Assessment KAP + HH survey	once

	purpose workers		
1.5.a Provision of supportive outreach measures including transport vouchers and BCC to increase facility utilization			
1.5.1 increase in referrals by 50 % by 2020	Transport vouchers for 20% of pregnant women	District management assessment	Mid term End term
1.5.2 Community based education coverage: 80% of population:2020	Enhanced community education package	District management assessment	Mid term End term
1.6 a Intersectoral district based pilots on nutrition and social development through collaboration with BISP, water & sanitation, education and other sectors			
1.6.1 1 pilot in place in each district:2018	22 pilots		
1.7: a Strengthen district health governance for result based implementation of services in disadvantaged districts.			
1.7.1 District managers and senior MOs trained: 2018	Trainings and refreshers completed in 22 districts		
1.7.2 Financial management systems reforms introduced: 2013 Performance based budget system in place:2018	FMIS system with performanc e based budgeting modules		
7.7.3 Fully functional Monitoring systems in place: 2014	See governance section		

1 b: URBAN PHC FOR LOW INCOM E GROUPS

Implement an Urban PHC system built on public private partnerships and addressing contextual needs of low income urban population

Key Performance, Indicator	Targets for 2020	Verification	
		Means	Frequency
1.1b .Develop an integrated family health practice model of "one stop shop for health and population" in low income urban localities involving registering of households with practitioner			
1.1.1B Detailed plan developed and approved: 2013	FP plan developed	Internal assessment of targets by DOH	Ongoing
1.2. b Roll out of urban adjusted Minimum Service Delivery Package through franchising with GPs and NPOs, and and upgrading and standardizing services of existing urban dispensaries			
2.2.1 MSDP township package developed and costed 2012	MSDP package designed and costed	Pre and post KAP of participating GPs	Once
1.2.2 completion of training and accreditation for family practice model: 2016	200 franchised GP practices/NPOs offering MSDP	DHIS Balanced score card HH survey	Ongoing Four years once
1.2.3 facilities standardized for MSDP: 2016	40 FLCFs offering MSDP	DHIS Balanced score card HH survey	Ongoing yearly once

1.3. b Implementation of urban adjusted Essential Health Service Package at identified secondary care centres in public and private sector with prioritized referral links from MSDP centres, and onward linkage to tertiary hospitals			
1.3.1. facilities standardized for EPHS: 2016	5 public sector secondary care centers offering EPHS	Internal assessment of targets by DOH	Ongoing
1.3.2 Completion of training and accreditation for ESDP centers:2015	5 franchised NPO centers offering EPHS		
1.4. b Deployment and training of LHWs and multi-purpose health workers linked to Family Practice model for community based health package targeted to entire household.			
1.4.1. Detailed plan with job descriptions and staff requirements:2012 Induction and training completed: 2013	One TA for deign of community based education Section 2 for deployment	HH survey Field monitoring	Baseline & endline Ongoing
1.5.b Use of family health cards for free consultative services and drugs, and subsidized charges for diagnostic support			
1.5.1 Detailed plan developed and approved: 2013	TA for detailed plan	Internal assessment of targets by DOH	once
1.6 b Support implementation of key lifestyle changes through behavioral change and inter-sectorial action			
1.6.1 Development of BCC strategies by 2013 Roll out of BCC in targeted areas by 2014	BCC strategy designed Section 3 for BCC implementation	Internal assessment of targets by DOH	Ongoing
1.6.2 Detailed action plan developed: 2013. Inter-sectoral committees District Task Force in place:2014	10 inter-sectoral township committees	Internal assessment of targets by DOH	Ongoing + End line performance assessment

Performance Assessment: 2016			
1.7 b Strengthen municipal health governance for implementation of urban PHC systems, including integrated delivery from public sector, stewardship of private sector and implementation of viable financial models			
1.7.1 Establishment of Urban Health Directorate under DGHSS : 2013	1 unit set up under DGHSS	Internal assessment of targets by DOH	Ongoing
1.7.2 M&E system in place: 2015	Capacity building TA completed	Internal assessment of targets by DOH	Ongoing
1.7.3 Detailed budgetary plan and funding commitments in place: 2012 Financing payments pilots in place: 2014	Budgetary proposal finalized Financing systems in place	Internal assessment of targets by DOH	Ongoing
1.7.4 MIS system fully functional : 2014 Operations research projects completed:2015	Fully functional MIS system	Internal assessment of targets by DOH	Ongoing

2. HUMAN RESOURCE MANAGEMENT

Streamline human resource production, retention and capacity to support priority heath needs

Key Performance, Indicator	Targets for 2020	Verification	
		Means	Frequency
2.1. Strengthen development, deployment and retention of female health staff in rural areas.			
2.1.1 Increase nursing and midwife production	5000/ year and LHV production to 3200/ year : 2020	Internal assessment by DOH	Ongoing
2.1.2 Incentives for postings of postings completed of essential female health staff in all selected MSDP and EPHS centers: 2018	5500 female staff	Balanced score card	yearly
2.1.3 Completion of training; 2015	7000 female staff	Internal assessment by DOH	Ongoing
2.2. Enhance coverage and technical supervision of LHWs, and deploy community male and female volunteers in under-covered remote areas using a modified package of services			
3.2.1 LHWS trained in enhanced services: 2015	22000	Pre and post KAP of DHQ staff	yearly
2.2.2 coverage extended to 80 % of under covered areas: 2017	11000 additional recruits	Field monitoring	Ongoing
2.3. Fill vacancies of specialists at rural DHQs and Civil Hospitals through task shifting and telemedicine			
2.3.1 task shifting against specialist positions in DHQs: 2015 Staff training of DHQ staff : 2015 Telemedicine network with teaching	Policy decision for staff posting : estimated 110 PGs	Balanced score card	Annual

hospitals in place 2014			
2.4 Develop a trained administrative cadre to improve efficiency of health administration at district and provincial level.			
2.4.1 Administrative cadre in place at Province and all across all district : 2013 In – service management training completed ;2014	See governance section	Pre and post KAP of administrative cadre	Once
2.5 Develop a hospital pharmacy cadre to ensure rational use of drugs and quality management of inventory			
Hospital pharmacy cadre established: 2013	TA for design	Internal assessment by DOH	Ongoing
Hospital pharmacists appointed in all DHQs and Civil Hospitals: 2015	44	Internal assessment by DOH	Ongoing
2.6 Strengthen management of human resources in the Province.			
2.6.1 Human resource master plan in place: 2012 Block grants provided to increase production of allied health personnel by 50%: 2015	HR plan developed and costed	Internal assessment by DOH	Ongoing

3. SPECIAL PROGRAMS OF FOCUS

To build capacity and systems for disaster preparedness and management

Key Performance, Indicator	Targets for 2020	Verification	
		Means	Frequency
3.1. Aggressive coverage of Polio through implementation of community based Polio Plus Program			
3.1. Implementation of polio plus in all high risk UCs : 2016	1	Internal assessment by DOH	Ongoing Evaluation study: mid term + end term
3.2. Mainstreaming of evidence based action for under-nutrition in health packages and establishing linkages with other sectors for integrated pilots			
3.2.1 implementation of enhanced nutrition package : 2016	400 MSDPs + 32 EPHS Centers + community outreach	Balanced score card	Annual
3.2.2 implementation of inter-sectoral district pilots : 2016	22 districts + 10 low income townships	External Validation	Midterm +endline assessment
3.3 Functionalizing of MNCH services at ESDP, MSDP and community based level and enhancement of community based services building in evidence based interventions			
3.3. Enhanced MNCH package implemented in all district ; 2016	400 MSDPs + 32 EPHS Centers + community outreach	Balanced score card	Annual
3.4 Re-defining links with DOPW with shift of contraceptive services through district and urban PHC systems and aimed at birth spacing in younger couples			
3.4 Integrated contraceptive services with maternal care: 2016	400 MSDPs + 32 EPHS Centers +	Balanced score card	Annual

	community outreach		
3.5 Mainstreaming of primary and secondary control of NCD interventions and lifestyle support in low income urban townships			
Operationalized NCD Commission: 2013	Notified NCD Commission functional with budgetary support	Internal assessment by DOH	Ongoing
3.6 Establishing links between TB, Malaria and Hepatitis for integrated control at community based, MSDP and ESDP levels, and evidence based intervention enhancements.			
3.6.1 Implementation of integrated CD package and PPPs in all districts: 2016	400 MSDPs + 32 EPHS Centers + community outreach	Balanced score card	Annual
3.7 Implement focal action on HIV / AIDS and STIs in targeted risk groups through NGO government partnership			
3.7.1 Provision of risk group services initiated : 2014	Targeted Interventions in IDUs & MSM + other risk groups	External validation	Mid term , end term
4.8 Establish permanent structures at provincial and district levels for disaster management and enhance capacity.			
3.8.1 Functional Provincial Disaster Management Units	Situation analysis completed	Internal assessment by DOH	Ongoing
3.8.2 Functional district disaster core groups in all districts : 2012	23 disaster groups with resource support	Internal assessment by DOH	Ongoing
3.8.3 Trainings on disaster management and rehabilitation	23 disaster groups	Internal assessment by DOH	Ongoing

3.9: Establishment of a Medico-Legal Unit at the Provincial Level for enhancement of forensic medicine services at THQs and DHQs			
3.9.1 Functional provincial unit & district services: 2015 :	1 Provincial Unit 44 hospitals in districts	Internal assessment by DOH	Ongoing
3.10: Incorporation of integrated health response to gender based violence			
3.10.1 Training and Integrated packages on gender based violence: 2015:	Training of EPHS and MSDP staff completed	Internal assessment by DOH KAP survey	Ongoing Pre and post training
3.11: Participation in inter-sectoral action for occupational health in industrial, agriculture and informal sector			
3.11.1 Data analysis on risk factors: 2013 **3.11.2** Advocacy and BCC strategy: 2013 **3.11.3** Training of providers on occupational health: 2015	Integrated Health response to occupational health	External validation	Baseline and endline

4. ESSENTIAL MEDICINES

Enhance sector-wide access to essential drugs through improvement in quality assurance, affordability, supply management and rational prescriptions

Key Performance, Indicator	Targets for 2020	Verification	
		Means	Frequency
4.1 Enhance technical and budgetary support for market surveillance and quality assurance of drugs			
4.1.1 Trained and equipped drug inspectors in place : 2013 Periodic market surveys: 2014 and 2018	1 survey	Drug outlet, dispensing and storage survey	Three yearly
4.1.2 Completion of registration and licensing of existing drug outlets: 2014	15,000 drug outlets	Internal assessment by DOH	Ongoing
4.1.3 Consumer grievance system in place: 2013	1 CGS in place	Consumer awareness survey	Three yearly
4.1.4 Technical Enhancement of Drug Testing completed: 2014	3 labs	Quality benchmark for laboratory testing	Annual
4.2. Reduction in OOP Expenditure on Drugs			
8	50% non salaried allocation in district budgets	Budget tracking system	annual
4.2.2 Financing measures in place in selected PPPs: 2018	80,000 beneficiaries	Commodity voucher monitoring	Ongoing End term

		system HH expenditure survey	
4.2.3 Health Equity funds in place in identified Teaching Hospitals: 2014	Health equity funds placed in 10 teaching hospitals	Financial monitoring system Patient exit survey on expenditure	Ongoing End term
4.3. Strengthen management of drug supplies in public sector so as to improve availability of quality drugs and improve accountability			
4.3.1 50% of major public sector hospitals and 100% of districts following quality parameters for procurement : 2014	50%Hospitals and 100% districts following quality procurements	Quality and financial audits	Yearly
4.3.2 Logistic Management Information Systems in place in all districts: 2015	Logistics Management Information System	Internal assessment by DOH	Ongoing
4.4. Plug deficiencies in production, deployment and training of pharmacists			
4.4.1 To achieve a pharmacist: population ratio of 1:4000:2020	4800 pharmacists produced	Inventory of annual enrolment & production	Annually
4.4.2 To establish 1 hospital pharmacist per DHQ and 1 per 100 beds in Teaching Hospitals: 2015 2016 To train 80% of licensed pharmacists: 2017	40 Pharmacists hired	Internal assessment by DOH	Ongoing

4.5 Promote multi-pronged strategies for rational use of drugs, including promotion of generics, reduction in poly-pharmacy and improving drug dispensation practices			
4.5.1 100% of DHQs &THQs and 50% of Teaching hospitals compliant with formulary based procurement : 2014 2 periodic rounds of market surveillance completed : 2018	60 hospitals 2market surveys	Procurement audits Market survey	Yearly 4 yearly
4.5.2 1 pharmacy per union council: 2020	4300 pharmacies	Internal assessment & licensing database	Ongoing
4.5.3 50% of registered GPs and 80% of government general cadre staff trained in standard drug regimes: 2020	1000 health care providers	Pre and post KAP of GPs and general cadre trained in standard drug regimens	Once
4.6. Develop a central body for pharma functions integrating and enhancing existing functions being undertaken by Drug inspectorate, quality Assurance and Training units			
4.6.1 Establishment of Pharmacy Directorate: 2013	1	Internal assessment by DOH	Ongoing
4.6.2 Capacity building TA completed: 2015	Capacity building firm hired	Capacity Assessment	once
4.6.3 Establishment of Provincial Committee on Good Practices: 2012	1 committee	Internal assessment by DOH Reporting on key deliverables	Ongoing Ongoing

5: REGULATION

Regulate the health sector in particular the extensive private sector towards licensed practice, standardization of care, minimal reporting requirements and address of medical negligence

Key Performance, Indicator	Targets for 2020	Verification	
		Means	Frequency
5.1 Establish a Regulatory Authority and develop systems for licensing and registration of private health providers and outlets			
5.1.1 Establishment of Regulatory Authority: 2013	1 Regulatory Authority	Internal assessment by DOH	Ongoing
5.1.2 Database of licensed private practitioners in place :2014 Registration of 80% of private practitioners: 2020	80% private practitioners	Reporting from Registration database Assessment survey	Ongoing End term
5.1.3 Registration of 80% of laboratories / diagnostic centers: 2020	80% laboratories / diagnostic centres	Reporting from Registration database Assessment survey	Ongoing End term
5.1.4 Registration of 100% of drug outlets: 2014	100% drug outlets	Reporting from Registration database Assessment survey	Ongoing End term

5.1.5 Development of consumer awareness plan : 2014			
5.2. Provide incentives for self-accreditation of private providers and implementation of standardized services in major urban areas			
5.2.1 25% of licensed private providers of all districts undergo accreditation:2020	25% of licensed private providers	Database of regulatory authority Provider survey	Ongoing End term
5.2.2 50% of health NPOs in all districts undergo accreditation:2017	50% of health NPOs	Database of regulatory authority Provider survey	Ongoing End term
5.2.3 20% subsidy provided for basic CME package Self-licensing web systems developed, commissioned and functioning: 2015	CME web system	Consumer awareness survey	Three yearly
5.3. Enhance accountability for medical negligence and consumer support mechanisms			
5.3.1 All major public sector hospitals have completed foundation training in medical ethics:2016 20% of private sector hospitals have completed certification course on medical ethics: 2016	23 Civil Hospitals/ DHQs + 10 Teaching Hospitals Private sector hospital in SA report: chapter private sector.	Database of regulatory authority Provider survey	Ongoing End term
5.3.2 Consumer awareness help lines in place in all major public sector hospitals:2016	10-15	Consumer awareness survey	Three yearly

5.4. Implement a mechanism of minimal reporting from private for profit and NPO providers.			
5.4.1 Data pooling system extended to all tertiary public sector hospitals and all tertiary private hospitals: 2015	90 hospitals	Pooled reports generated on key health issues	Ongoing
5.4.2 Integrated Disease surveillance systems in place: 2014	Integrated Disease surveillance system	Data from disease surveillance rounds	Ongoing annual
5.5. Develop focal multi-sector strategies for ensuring healthier environment			
5.5.1 Incinerators deployed in Civil Hospitals / DHQs and major hospitals of all districts	30 Incinerators	Internal assessment by DOH Assessment survey	Ongoing End term

6: GOVERNANCE

To Respond to the stewardship and governance needs of health sector in the post 18th amendment devolution context, and also improve efficiency and transparency of existing functions.

Key Performance, Indicator	Targets for 2020	Verification	
		Means	Frequency
6.1 Establish stewardship function of Secretariat for strong and effective steering of public and private health sector.			
Restructuring plan formalized by: 2012	1	Internal assessment by DOH	Ongoing
Capacity building TA completed:2016	1	Internal assessment by DOH	Ongoing
6.2: Enhance visibility of Directorate in Implementation and oversight of district health services			
Capacity building TA completed: 2015	1	Internal assessment by DOH	Ongoing
Restructuring plan formalized by: 2012	1	Internal assessment by DOH	Ongoing
6.3: Functional and structural integration of programs having common outcomes for increased efficiency.			
Restructuring plan formalized by: 2012	1	Internal assessment by DOH	Ongoing
Capacity building TA completed: 2016Restructuring plan formalized by: 2012	1	Internal assessment by DOH	Ongoing
6.4: To establish a multi-stakeholder Provincial Health Commission on Non-Communicable Diseases focal body in the Province for technical guidance on control of NCDs across the health sector in Sindh.			

6.4.1 Notification and setting up of Task Force with budgetary provision, 2012	1	Internal assessment by DOH	Ongoing
6.4.2 Population based data collection on minimal NCD indicators, 2013 (See below) Proposals on service delivery, lifestyle and legislative actions: 2013	1 population based survey	Internal assessment by DOH	Ongoing
6.5: Establishing PPP Framework and re-working modalities for PPHI			
6.5.1 Design of new PPHI modalities for implementation after lapse of existing contracts: 2013	1	Internal assessment by DOH	Ongoing
6.5.2 PPP Framework developed: 2012	1	Internal assessment by DOH	Ongoing
6.6: Establishing a well designed and integrated functional Monitoring and Evaluation Mechanism			
6.6.1 M&E Unit established: 2012	1	Internal assessment by DOH	Ongoing
6.6.2 District health have 80% reporting rate for DHIS Hospital MIS pilot competed	23 districts Hospital MIS in all tertiary hospitals	Internal assessment by DOH	Ongoing
6.6.3 Information pooling database set up Single disease surveillance system in place:2014	Information database across tertiary hospitals Combined disease surveillance	Internal assessment by DOH	Ongoing

	systems		
6.6.4 NCD survey completed : 2013	1	Internal assessment by DOH	Ongoing
6.6.5 Public Expenditure Tracking Systems established: 2013	1	Internal & External Validation	Ongoing
6.7 Establish hospital autonomy pilots for major tertiary hospitals / specialist while building in social accountability and transparency and pro-poor protection measures.			
6.7.1 Detailed plan developed for hospital autonomy: 2013	1	Internal assessment by DOH	Ongoing
6.7.2 Hospitals meeting accreditation included for pilot	2	Internal assessment by DOH	Ongoing
6.7.3 10% of institutions included for pilots: 2020			
6.8: To improve accountability in health service delivery by enhancing internal controls and establishing social accountability mechanisms			
6.8.1 Sindh Health Task Force established: 2012 80% of districts and municipalities have Citizens oversight bodies by 2020 100% of Teaching hospitals& DHQs have a functional health board: 2020	Sindh Health Task Force 33 Citizens oversight bodies 35 Hospitals have Health Boards	Internal assessment by DOH	Ongoing
6.8.1 Package of transparency measures in place at provincial level: 2016	10	Internal assessment by DOH	Ongoing

7: HEALTH SECTOR FINANCING

Increase investment in health sector and shift towards innovative financing systems to reduce OOP expenditure in the poor

Key Performance, Indicator	Targets for 2020	Verification	
		Means	Frequency
7.1 Increase total investment in the health sector, increasing public sector expenditure and effectively harnessing funding from private sector and international organizations			
7.1.1 Health expenditure by public sector reaching 10% of total provincial public sector expenditure: 2020	10% of public expenditure	Public Accounts Tracking	Yearly
7.1.2 Matching philanthropic contribution ratio of 1:10 to governmental funding	Harnessing of matching 1:10 philanthropic contribution	Public Accounts Tracking Provincial Health Accounts	Yearly Four years
7.1.3 Raising donor contribution to matching 20% of total public sector expenditure	Harnessing of matching 1:5 donor contribution	Public Accounts Tracking Provincial Health Accounts	Yearly Four years
7.2. Increase investment in provision of primary care and essential secondary referral care			
7.2.1 Non-salary budget increased to 50% of total operational budget in all districts: 2020	Increase in Non salary budget to 50% of total operational budget	Public Accounts Tracking	Yearly
For details on vouchers, health cards etc see Section 1a &b.		-	-

7.3. Reduce OOP expenditure on medicines through multi-dimensional initiatives			
7.3.1 As in Strategic Outcome 1	50% of eligible households	Voucher monitoring system HH expenditure survey	Ongoing inception and end term
7.3.2 As in Strategic Outcome 4		-	-
7.4.Reduce catastrophic OOP expenditure through introducing Health equity funds and Community Pre-Payment Schemes for the poor			
7.4.1 Design of HE fund completed: 2012 Pooled Health Equity Fund in place in DHQs and Teaching Hospitals of all districts: 2014	Pooled health equity fund in 23 districts	HE financial monitoring systems HH expenditure survey	Ongoing Inception and end of term
7.4.2 Implementation of pre-payment pilot for emergency hospitalizations: 2014	4 urban townships	Insurance monitoring system HH expenditure survey	Ongoing Inception and end term
7.5: Increase efficiency and performance of government financial systems			
7.5.1 Completion of Program Budgeting at provincial level: 2015	All health departments	Internal assessment by DOH	Ongoing
7.5.2 Completion of Program Budgeting in all districts: 2020	All 23 districts	Internal assessment	Ongoing

		by DOH	
7.6: Increase efficiency through reducing overlaps across programs, reducing overlaps with private sector and removal of redundancies			
7.6.1 Integrative restructuring completed : 2013	Restructuring completed	Internal assessment by DOH	Ongoing
7.6.2 Redundant posts and staff reviewed and adjusted: 2013	Review completed	Internal assessment by DOH	Ongoing
7.6.3 Reduction of capital investment by 60%: 2017	Capital investment reduced by 60%	Financial tracking	Yearly

5.1 FINANCIAL INVESTMENT REQUIRED

Output based Costing Approach: The costing of health sector strategy (2012-2020) of Sindh has been carried out using an output based approach. The costing exercise was directed towards forecasting the additional resources required for implementation of HSS. The cost for scaling up critical health interventions was calculated as the unit price of inputs multiplied by the quantity of inputs necessary to increase coverage with improved services. Quantity of inputs was determined keeping in view the increase in coverage with health services ,increase in physical access, availability of human resources, availability of commodities and supplies, increase in demand and continuity of services. Outputs for each service delivery area, for five years, were taken into account to determine robust costs of health interventions. In areas where it was difficult to identify the out puts produced, proxy indicators were used to determine the cost of a strategic objective. Assumptions were made for cost drivers for input costs such as salaries, equipment and O&M cost, based on the current prevailing costs in Pakistan and other transitional economies. For the purpose of forecasting, cost estimates were converted into annual additional funding requirements. The additional cost estimates were distributed into yearly additional budget needs following the pace of implementation laid out in HSS. Details of assumptions is given in Annexure document.

Additional Outlay Needed: Reconciled expenditures from 2010-11 show total spending of PKR: 22.2 billion which is equivalent to PKR 516 per capita or USD 5.3 per capita. This is combined spending of 12.9 billion at provincial and 9.2 billion at district level.

Implementation of Sindh Health Sector Strategy 2012-2020 requires PKR 318.7 billion (USD 3.54 billion) equivalent to PKR.39.5 billion per annum (USD 0.4 billion per annum) over eight years as additional investment over and above existing budgetary commitment of DOH. The amount will be incrementally increased over the eight year period. HSS implementation would imply an additional per capita spending of PKR 918 per capita or USD 9.5 per capita. Sources for contribution towards this amount are discussed in next section.

PAK Rupees

Total Cost								Total Cost for 8 Years
2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
26,379,500,000	31,852,925,000	34,731,644,250	36,913,527,000	42,333,461,000	45,139,986,500	48,029,575,500	53,319,427,000	318,700,046,250

US Dollars

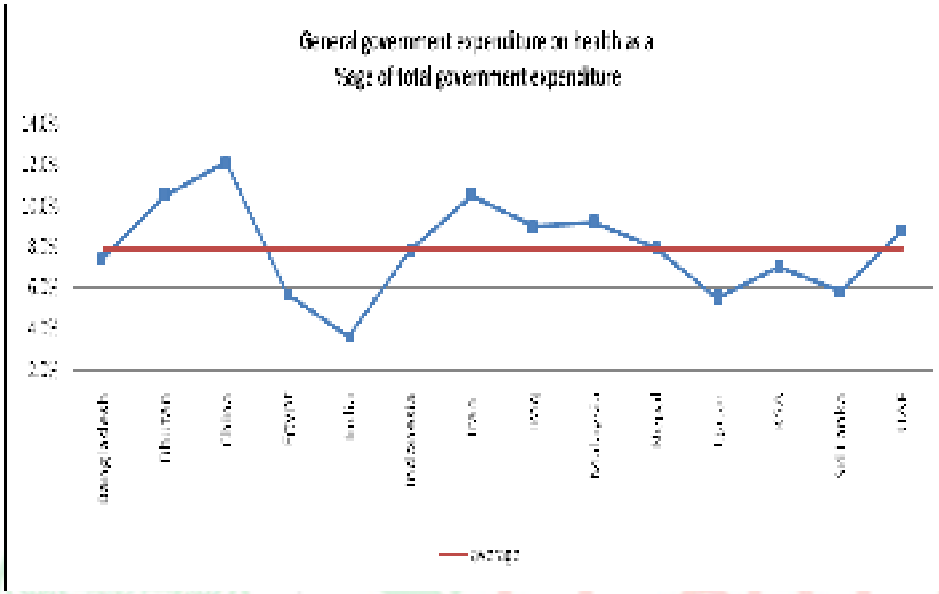
Total Cost								Total Cost for 8 Years
2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
293,105,556	**353,921,389**	**385,907,158**	**410,150,300**	**470,371,789**	**501,555,406**	**533,661,950**	**592,438,078**	**3,541,111,625**

5.2 FINANCING SOURCES

The proposed increase in expenditure for HSS implementation can be feasibly met through contribution by various sources. The measures resulting in increased fiscal space are suggested below :

- **Public sector:** Existing allocation to health as share of total provincial outlay is 6% inclusive of provincial and district spending and 4 % inclusive of provincial spending only. The share to health sector needs to be increased within the public sector keeping in view 2 reasons: i) the health expenditure trend in the regional countries shows a higher average contribution of 8% and above (Fig 1); and ii) increase investment in health is advocated by MDGs. Doubling of investment by government of Sindh would imply a total average amount of PKR 44.4 billion per annum or USD 1023 per capita per annum, equivalent to USD 10.6 per capita per annum, and spread out over the provincial level and also the district level in the post SLGO context.

Figure 1: General government expenditure on health as %age of total government expenditure



Source: Global Health Observatory Data Repository

- **Development Partners:** Development partner contribution has been lowest in Sindh at less than 1% of total health expenditure. Matching contribution in foreign aid is proposed on 1:4 donor to government ratio. This means that for 44.4 billion per year contributed by DOH in real terms, donors would contribute matching 25% equivalent to 11.1 billion per annum or PKR 268 equivalent to USD 2.6 per capita.
- **Philanthropic Sector:** Sindh has highest philanthropic contribution in Pakistan, including contributions from corporate sector, but contributions have not been effectively strategized for achievement of policy targets. Harnessing of philanthropic contributions to match government contributions is proposed on 1:15 philanthropic to government ratio. This means that for 44.4 billion per year contributed by DOH in real terms, philanthropic sector would contribute matching 15% equivalent to PKR 6.6 billion per annum or USD 1.6 per capita.

- **Tax Revenues:** Allocation of revenues from tobacco tax is proposed to support non-communicable disease control. Approximation of its revenues have not been built in and will be treated as additional fiscal space.

- **Efficiency Measures within DOH:** Increase efficient utilization of funding through introduction of result oriented financial systems, capacity building of district and program managers, administrative de-concentration and faster monitoring and accountability checks. Approximation of savings as a result of efficiency measures have not been built in and will be built in as additional fiscal space.

- **Other entities:** Other contributors include social Security, Zakat and Bait-ul-Mal and health services run by public sector entities such as Army, Police etc, which constitute close to 2% of total health expenditure. With no substantial increase in this investment the continued contribution would be USD 1 per capita.

5.3: Total Health Expenditure Per Capita:

It is estimated that total expenditure from all sources (except households) would be USD 15.8 per capita per annum.

We project that this would bring down household expenditure, currently at 66% of total health expenditure[1] , to 50% of total health expenditure by the end of 2020. This would approximate to USD 17.2 per capita.

The total health expenditure, including households and entities, would then be USD 33 per capita per annum which is close to USD 35 per capita per annum recommended for spending by Macro-Economic Commission on Health.

[1] Situation Analysis for Post Devolution Health Sector Strategy of Sindh Province - November 2011

PAK Rupees

Description	Total Cost								Total Cost for 8 Years
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
1.a Strengthen district health systems	1,084,350,000	1,161,498,000	1,261,146,000	1,024,994,000	1,090,676,000	1,160,858,000	1,226,540,000	1,296,722,000	9,306,784,000
1.b Urban PHC for low income groups	1,381,900,000	1,655,900,000	1,867,400,000	1,692,400,000	2,097,400,000	2,277,400,000	2,457,400,000	2,664,400,000	16,094,200,000
1 Service Delivery	2,466,250,000	2,817,398,000	3,128,546,000	2,717,394,000	3,188,076,000	3,438,258,000	3,683,940,000	3,961,122,000	25,400,984,000
2. Human Resource Production	156,600,000	488,925,000	555,525,000	640,125,000	706,725,000	782,325,000	857,925,000	879,525,000	5,067,675,000
3. Special Areas of Focus	284,400,000	367,200,000	388,800,000	406,800,000	457,200,000	430,200,000	430,200,000	430,200,000	3,195,000,000
4. Essential Medicines	226,200,000	152,100,000	169,800,000	156,000,000	169,200,000	204,900,000	195,600,000	199,800,000	1,473,600,000
5. Regulation	249,300,000	199,800,000	199,800,000	219,600,000	219,600,000	190,800,000	190,800,000	190,800,000	1,660,500,000
6. Governance	240,300,000	243,000,000	243,000,000	234,000,000	207,000,000	135,000,000	135,000,000	135,000,000	1,572,300,000
7. Health Financing	22,756,450,000	27,584,502,000	30,046,173,250	32,539,608,000	37,385,660,000	39,958,503,500	42,536,110,500	47,522,980,000	280,329,987,250
	26,379,500,000	31,852,925,000	34,731,644,250	36,913,527,000	42,333,461,000	45,139,986,500	48,029,575,500	53,319,427,000	318,700,046,250

US Dollars

	Description	Total Cost								Total Cost for 8 Years
		2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
1A	Strengthen district health systems	12,048,333	12,905,533	14,012,733	11,388,822	12,118,622	12,898,422	13,628,222	14,408,022	103,408,711
1B	Urban PHC for low income groups	15,354,444	18,398,889	20,748,889	18,804,444	23,304,444	25,304,444	27,304,444	29,604,444	178,824,444
1	Service Delivery	27,402,778	31,304,422	34,761,622	30,193,267	35,423,067	38,202,867	40,932,667	44,012,467	282,233,156
2	Human Resource Production	1,740,000	5,432,500	6,172,500	7,112,500	7,852,500	8,692,500	9,532,500	9,772,500	56,307,500
3	Special Areas of Focus	3,160,000	4,080,000	4,320,000	4,520,000	5,080,000	4,780,000	4,780,000	4,780,000	35,500,000
4	Essential Medicines	2,513,333	1,690,000	1,886,667	1,733,333	1,880,000	2,276,667	2,173,333	2,220,000	16,373,333
5	Regulation	2,770,000	2,220,000	2,220,000	2,440,000	2,440,000	2,120,000	2,120,000	2,120,000	18,450,000
6	Governance	2,670,000	2,700,000	2,700,000	2,600,000	2,300,000	1,500,000	1,500,000	1,500,000	17,470,000
7	Health Financing	252,849,444	306,494,467	333,846,369	361,551,200	415,396,222	443,983,372	472,623,450	528,033,111	3,114,777,636
		293,105,556	353,921,389	385,907,158	410,150,300	470,371,789	501,555,406	533,661,950	592,438,078	3,541,111,625

The health sector strategy (2012-2017) has been carried out using an output based costing approach. Outputs for each service delivery area, for five years, have been into taken into account determine robust costs of health interventions. In areas where it was difficult to identify the out puts produced, proxy indicators were used to determine the cost of a strategic objective. Assumptions were made for input costs for cost drivers such as salaries, equipment and O&M cost, based on the current prevailing cost in Pakistan and other transitional economies.

The health strategy for five years requires a total out lay of USD 169.271 million. These funds will be required over and above the existing funds available with the Govt. of Sindh for health sector. The five year costs are given below :

Objectives	Year 2012-13 USD	Year 2013-14 USD	Year 2014-15 USD	Year 2015-16 USD	Year 2016-17 USD	Total USD
To strengthen district health systems particularly in seven most under-developed districts of Sindh	3,935,133	9,691,044	8,528,467	1,505,000	1,533,000	25,192,644
Implementan Urban PHC system built on public private partnerships and addressing contextual needs of low income urban population	8,805,556	9,605,556	9,505,556	9,305,556	9,405,556	46,627,778
To strengthen district health systems particularly in seven most under-developed districts of Sindh	2,613,333	4,945,833	8,392,500	12,565,833	17,425,833	45,943,333
To identify key areas requiring knowledge and skill building to predict, prepare and plan activities for disaster preparedness and management	430,000	250,000	250,000	250,000	250,000	1,430,000
To enhance sector-wide access to essential drugs through improvement in quality assurance, affordability, supply management and rational prescriptions	3,170,000	6,464,444	6,464,444	6,714,444	6,464,444	29,277,778
Regulate the health sector in particular the extensive private sector towards licensed practice,	2,750,000	1,800,000	1,800,000	800,000	800,000	3,300,000

standardization of care, minimal reporting requirements and address of medical negligence						
To respond to the stewardship and governance needs of health sector in the post 18th amendment devolution context, and also improve efficiency and transparency of existing functions	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000	12,500,000
To increase investment in health sector and shift towards innovative financing systems to reduce OOP expenditure in the poor.	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
	25,204,022	**36,256,878**	**38,440,967**	**34,640,833**	**39,378,833**	**169,271,533**

Based on the above figures and latest health budget estimates, it is envisaged that at least 17% additional funds are required each year to support the effective health service delivery by the Government of Sindh. The additional funds are primarily required to be directed towards strengthening the existing health systems.

1A. STRENGTHEN DISTRICT HEALTH SYSTEMS

A. Strengthen district health systems starting with most under-developed districts of Sindh

Description	Total Cost								Total Cost for 8 years
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
MSDP facility in each Taluka	670,000	795,000	1,020,000	1,055,000	1,205,000	1,355,000	1,505,000	1,655,000	9,260,000
EPHS established at each DHQ	1,454,000	1,728,000	2,052,000	1,908,000	2,124,000	2,340,000	2,556,000	2,772,000	16,934,000
Confined MSDP contracting out for remote talukas	1,663,200	2,346,400	2,829,600	2,958,400	3,247,200	3,736,000	4,024,800	4,513,600	25,319,200
Integrated community health package with BCC	Costed in section 2	Costed in section 2	Costed in section 2	Costed in section 2	Costed in section 2	Costed in section 2	Costed in section 2	Costed in section 2	Costed in section 2
Transport vouchers and early referrals	7,781,133	7,706,133	7,781,133	5,137,422	5,212,422	5,137,422	5,212,422	5,137,422	49,105,511
Intersectoral pilots on nutrition and social development in each district	Costed in section 3	Costed in section 3	Costed in section 3	Costed in section 3	Costed in section 3	Costed in section 3	Costed in section 3	Costed in section 3	Costed in section 3
Strengthening district health governance	480,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000	2,790,000
	12,048,333	12,905,533	14,012,733	11,388,822	12,118,622	12,898,422	13,628,222	14,408,022	103,408,711

1B. URBAN PHC FOR LOW INCOME GROUPS

B. Implement an Urban PHC system built on public private partnerships and addressing contextual needs of low income urban population

Description	Total Cost								Total Cost for 8 Years
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
Planning and scoping for integrated family health model of "one stop shop for health and population" in low income urban localities .	600,000	0	0	0	0	0	0	0	600,000
MSDP roll out through GPs, NPOs, and existing FLCFs	5,300,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	4,800,000	38,900,000
EPHS established at identified secondary care centers in public and private sector	4,944,444	8,888,889	8,888,889	4,444,444	4,444,444	4,444,444	4,444,444	4,444,444	44,944,444
Deployment of LHWs and multi-purpose health workers linked to Family Practice model	1,950,000	3,450,000	5,950,000	8,450,000	11,950,000	14,950,000	16,950,000	18,950,000	82,600,000
System for distribution and monitoring of Family health cards for low income groups	400,000	100,000	100,000	100,000	100,000	100,000	100,000	400,000	1,400,000
Support implementation of key lifestyle changes through behavioral change and inter-sectorial action	1,200,000	200,000	200,000	200,000	1,200,000	200,000	200,000	200,000	3,600,000
Strengthen governance for implementation of urban PHC	960,000	960,000	810,000	810,000	810,000	810,000	810,000	810,000	6,780,000
	15,354,444	18,398,889	20,748,889	18,804,444	23,304,444	25,304,444	27,304,444	29,604,444	178,824,444

2. HUMAN RESOURCE MANAGEMENT

Streamline human resource production, retention and capacity to support priority heath needs

Description	Total Cost								Total Cost for 8 years
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
Production of nurses and female paramedics Retention incentives for female doctors, nurses and paramedics in rural areas	420,000	4,492,500	5,332,500	6,172,500	7,012,500	7,852,500	8,692,500	8,932,500	48,907,500
Fill vacancies of specialists at rural DHQs and Civil Hospitals through task shifting and telemedicine	500,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,900,000
Health Management Cadre	640,000	640,000	640,000	640,000	640,000	640,000	640,000	640,000	5,120,000
Hospital pharmacy cadre	0	0	0	0	0	0	0	0	0
Management of human resources	180,000	100,000	0	100,000	0	0	0	0	380,000
	1,740,000	5,432,500	6,172,500	7,112,500	7,852,500	8,692,500	9,532,500	9,772,500	56,307,500

3. SPECIAL FOCUS AREAS

Special Areas of Focus

Description	Total Cost								Total Cost for 8 Years
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
Polio Plus Program for high risk UCs	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,000,000
Evidence based actions for under-nutrition and inter-sectoral pilots	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,000,000
Functionalizing of MNCH services at ESDP, MSDP and community based level	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,000,000
Contraception provision integrated into maternal care	0	0	0	0	0	0	0	0	Contraceptives provided by DOPW
NCD control at primary and secondary level and lifestyle support	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,000,000
Evidence based interventions for TB, Malaria and Hepatitis	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,000,000
HIV control in targeted risk groups and BCC	0	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	7,000,000
Disaster management	300,000	100,000	100,000	100,000	400,000	100,000	100,000	100,000	1,300,000
Enhancing forensic medicine services at THQs and DHQs	360,000	480,000	720,000	920,000	1,180,000	1,180,000	1,180,000	1,180,000	7,200,000
	3,160,000	4,080,000	4,320,000	4,520,000	5,080,000	4,780,000	4,780,000	4,780,000	35,500,000

4. ESSENTIAL MEDICINES

Enhance sector-wide access to essential drugs through improvement in quality assurance, affordability, supply management and rational prescriptions

Description	Total Cost								Total Cost for 8 Years
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
Enhance Quality Assurance	1,670,000	700,000	750,000	500,000	500,000	750,000	500,000	500,000	5,870,000
Reduction in OOP Expenditure on Drugs	Addressed in Section 7								0
Improving supply side management	250,000	250,000	250,000	200,000	200,000	200,000	200,000	100,000	1,650,000
Increased production of pharmacists	493,333	640,000	786,667	933,333	1,080,000	1,226,667	1,373,333	1,520,000	8,053,333
Training on rational drug sue for doctors, pharmacists and dispensers	0	0	0	0	0	0	0	0	0
Central body for pharma functions : Pharmacy directorate	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	800,000
	2,513,333	1,690,000	1,886,667	1,733,333	1,880,000	2,276,667	2,173,333	2,220,000	16,373,333

5. REGULATION

Regulate the health sector in particular the extensive private sector towards licensed practice, standardization of care, minimal reporting requirements and address of medical negligence

Description	Total Cost								Total Cost for 8 years
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
Establish a Regulatory Authority and develop licensing databases	520,000	220,000	220,000	440,000	440,000	220,000	220,000	220,000	2,500,000
Self-accreditation of private providers and implementation of standardized services	550,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	4,050,000
Enhance accountability for medical negligence and consumer support mechanisms	200,000	200,000	200,000	200,000	200,000	100,000	100,000	100,000	1,300,000
Mechanism for minimal reporting from private for profit and NPO providers	500,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	2,600,000
Focal strategies for ensuring healthier environment	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	8,000,000
	2,770,000	2,220,000	2,220,000	2,440,000	2,440,000	2,120,000	2,120,000	2,120,000	18,450,000

6. GOVERNANCE

To respond to the stewardship and governance needs of health sector in the post 18th amendment devolution context, and also improve efficiency and transparency of existing functions

Description	Total Cost								Total Cost
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
Establish stewardship function of Secretariat for strong and effective steering of public and private health sector.	30,000	300,000	300,000	300,000	200,000	200,000	200,000	200,000	1,730,000
Enhance visibility of Directorate in Implementation and oversight of district health services	30,000	300,000	300,000	200,000	200,000	200,000	200,000	200,000	1,630,000
Functional and structural integration of programs having common outcomes for increased efficiency	30,000	300,000	300,000	300,000	100,000	100,000	100,000	100,000	1,330,000
To establish a multi-stakeholder Provincial Health Commission on Non-Communicable Diseases focal body in the province for technical guidance on control of NCDs across the health sector in Sindh	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	2,400,000
Establishing PPP Framework and re-working modalities for PPH	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	800,000
Establishing a well designed and integrated functional Monitoring and Evaluation Mechanism	1,900,000	900,000	900,000	900,000	900,000	100,000	100,000	100,000	5,800,000
Establish systems for hospital autonomy pilots for major tertiary hospitals / specialist institutes	80,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	2,180,000
Enhancing social accountability at district and provincial levels	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	1,600,000
	2,670,000	2,700,000	2,700,000	2,600,000	2,300,000	1,500,000	1,500,000	1,500,000	17,470,000

7. HEALTH SECTOR FINANCING

Increase investment in health sector and shift towards innovative financing systems to reduce OOP expenditure in the poor.

Description	Total Cost								Total Cost
	2012-13	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2012-2020
Increase non-salary expenditure to 50% of total operational budget	247,049,444	300,694,467	328,046,369	355,751,200	409,396,222	437,983,372	466,923,450	522,333,111	3,068,177,636
Increase investment in provision of primary care and essential secondary referral care	Adjusted in Section 1: district health systems								0
Reduce OOP expenditure on medicines through rational drug use and supply management	Adjusted in Section 4: pharmaceuticals								0
Reduce catastrophic OOP expenditure through introducing Health equity funds and Community Pre-Payment Schemes for the poor	5,100,000	5,100,000	5,100,000	5,100,000	5,300,000	5,300,000	5,000,000	5,000,000	41,000,000
Investment in efficient and performance based government financial systems	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	4,800,000
Increase efficiency through reducing overlaps across programs, reducing overlaps with private sector and removal of redundancies	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	800,000
	252,849,444	306,494,467	333,846,369	361,551,200	415,396,222	443,983,372	472,623,450	528,033,111	3,114,777,636

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BRIDGING GAPS