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Feasibility study on result-based financial mechanisms for MNCH

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REPORT: FEASIBILITY STUDY ON RESULT-BASED FINANCIAL MECHANISMS FOR MNCH

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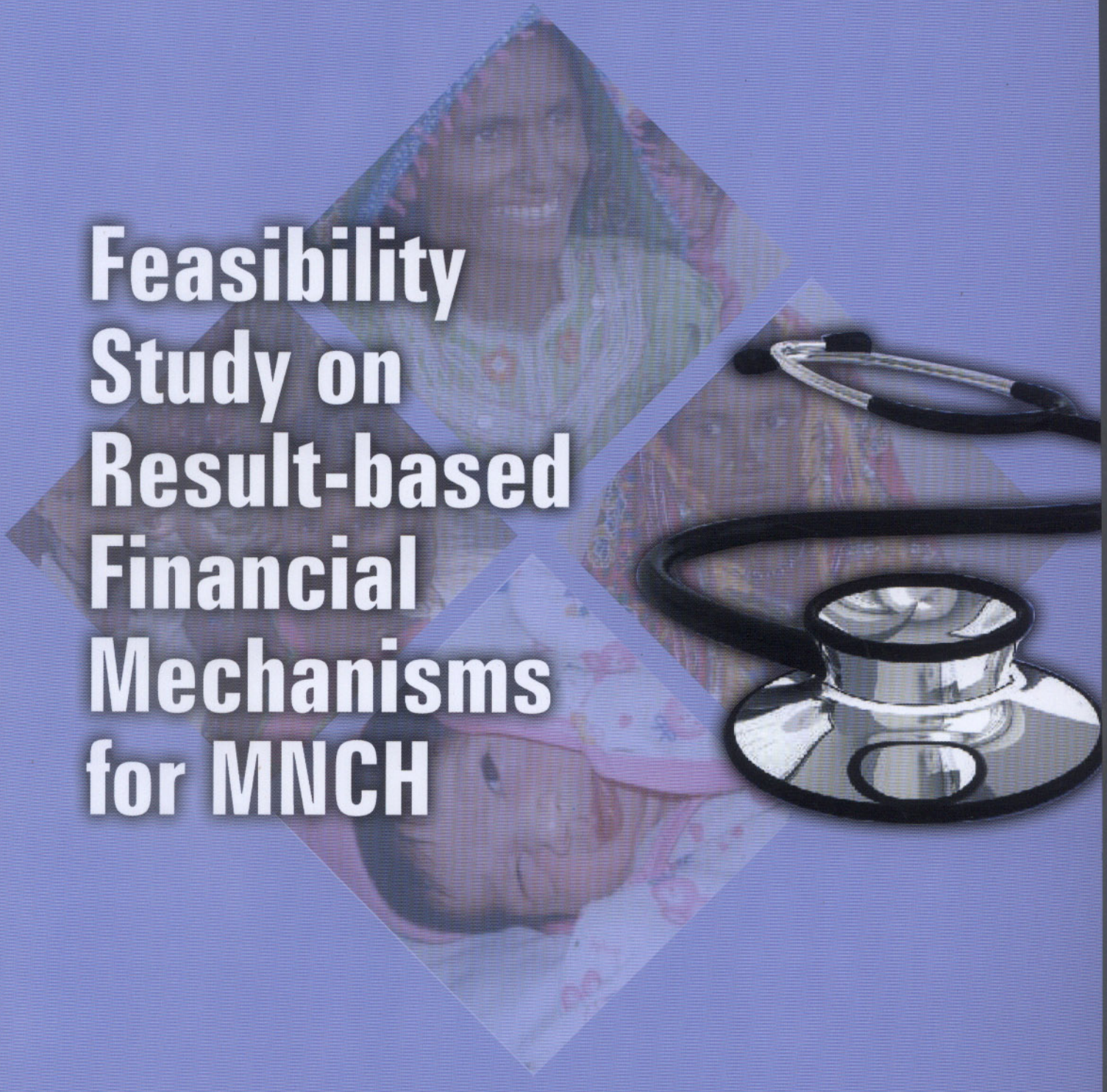


Feasibility Study on Result-based Financial Mechanisms for MNCH

Department of Health
Government of Sindh

National Maternal Newborn & Child Health Programme
Ministry of Health, Government of Pakistan

One UN Program
In Pakistan

United Nations Pakistan
Improving lives and helping people
Delivering as One

MNCH

MESSAGE

Pakistan recognizes and acknowledges that access to essential healthcare is a basic human right. The government's vision is to create a society in which women and children enjoy the highest attainable levels of health care and no family suffers the loss of a mother or child due to preventable or treatable causes. The government pledges to ensure that high quality healthcare services are delivered to all, especially the poor and the disadvantaged.

The MNCH program launched by the Government of Sindh with assistance from the federal government is committed to improve the accessibility of high quality and effective MNCH services for all by developing and implementing a sustainable and integrated MNCH program at all levels of the healthcare delivery system. The Norway-Pakistan Partnership Initiative (NPPI) will complement the government's effort in improving the health status of women, newborns and children in the province of Sindh, and will act as catalyst in implementing the ongoing MNCH program.

The findings of both studies in these ten NPPI districts—Baseline Household Survey on MNCH Indicators and Result-based Financing Mechanism—will not only serve as the basis for making evidence-based decisions while programs are being developed but will also assist in assessing progress and measuring change.

I congratulate MNCH Sindh and UNICEF for this milestone achievement and assure them of our fullest cooperation.

Muhammad Hussain Syed
Secretary Health
Government of Sindh

MNCH

FOREWORD

Pakistan has one of the highest maternal mortality ratios (MMR) in South Asia with an MMR of 276 per 100,000 live births. The situation in Sindh province is even worse where the MMR is 314 per 100,000 live births along with a high number of life threatening obstetric complications.

Sindh also has a very high infant mortality rate—81 per 1000 live births. Data such as this reflects the status of our MCHC service and underlines the need to develop a holistic, catalytic and strategic healthcare delivery system which would facilitate the implementation of national, provincial and district plans to improve maternal, newborn and child health (MNCH).

Pakistan is one of the signatories of the MDGs and hence needs to make a sustained investment in health services and human resources if MDG targets 4 and 5 are to be met.

Sindh province is being given an unprecedented opportunity through the NPPI to plan and implement innovative and flexible approaches for improving the quality, effectiveness and productivity of services that deliver MNCH care. In turn, this should help in creating an increased demand for these services as also their better utilization.

In addition to adopting different and catalytic approaches for the implementation of the MNCH program, the NPPI would be the first ever 'Deliver as one UN' program in Pakistan in which three UN partners will work together in an integrated and synergetic manner. This may be taken as a challenge as well as an opportunity for making a difference in the overall MNCH care delivery system in the country.

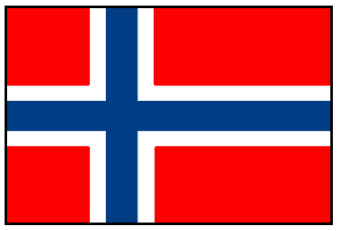
We have set ambitious targets by selecting ten districts of Sindh with the worst MNCH indicators in which to implement the NPPI project. Before launching the project, it was necessary to conduct a comprehensive baseline survey to measure the key indicators relevant to the MNCH program. After due process of inviting and evaluating competing proposals, Arjumand and Associates were awarded the contract for conducting the survey; I would like to acknowledge the high quality of work presented by them.

The findings of this study serve to emphasize the challenges that exist in providing relevant healthcare interventions to reduce maternal and infant deaths, and deliver basic obstetric and newborn care. This document will also be instrumental in measuring progress of the MNCH program and guide managers to take remedial measures where these are required.

I take this opportunity to thank all the partners of MNCH Sindh—UNICEF, WHO and UNFPA—for their support in monitoring the fieldwork of this study and providing timely feedbacks. I would specially like to thank the UNICEF Sindh office for their help in facilitating this study at every stage.

Finally, I invite all of you to join hands and work as a team to make this project a success and thereby bring about a positive change in the lives of the most vulnerable women and children of Sindh.

Dr Sahib Jan Badar
Provincial Manager
MNCH Sindh.



RESEARCH REPORT

Result Based Financial Mechanisms for Improving Maternal, Newborn and Child Health Outputs:

Feasibility Study for 10 NPPI Districts

Commissioned by

Sindh NMNCH Program & UNICEF

Prepared by

AGA KHAN UNIVERSITY, Karachi

March 2009

Acknowledgement

This study was commissioned by the MNCH Program and UNICEF and funded by the Norwegian Pakistan Partnership Initiative (NPPI) to guide placement of funding for the NPPI in rural Sindh.

Numerous persons made the study possible by facilitation of research work, data sharing and provision of valuable insights and candid views. Of special mention are Captain Abdul Majid (Special Secretary Public Health), Dr.Sahib Jan Badar and Capt Mushtaq Memon (MNCH Program) from Department of Health Sindh, and Dr. Ibrahim-el-Zeiq, Dr.Asif Aslam, Dr Nabila Zaka and Dr.Kamal Asghar from UNICEF. We would also like to acknowledge the support provided by Dr.Nasreen Khan, Dr.Hafeez Pirzado and Dr.Jawed Shaikh from WHO and Dr. Shehnaz Shallwani from UNFPA. Valued cooperation was provided by Dr.Ghualm Nabi Memon (Director General Health), Directors of Vertical Programs and Dr.Riaz Memon (PPHI Director), and all district level stakeholders in particular EDOs-Health, DCOs and Nazims. In particular we would also like to thank the health facility staff, private practitioners, LHWs and community respondents who participated in our study and volunteered time for interviews and discussions.

Funding for this study and valuable support provided by the Norwegian Embassy are gratefully acknowledged.

Research Team

Principal Investigator	-	Dr.Shehla Zaidi & Prof. Zulfiqar Bhutta
Economist	-	Dr.Asad Saeed
Social Scientist	-	Zahid Memon
MIS Specialist	-	Dr.Ajmal Agha
Consultant	-	Dr.Ghulam Haider Akhund

Research Staff: Zohra Lassi, Farhan Saeed Vakani, Yasser Kureshi, Mohammad Faisal, Tanweer Hussain, and Murad Charania

TABLE OF CONTENTS

Acronyms

ANC	Antenatal Care
BHU	Basic Health Unit
CCT	Community Cash Transfers
CDD	Control of Diarrhoeal Diseases
CEmONC	Comprehensive Emergency Obstetric and Neonatal Care
CHW	Community Health Worker
CMW	Community Midwife
CPR	Contraceptive Prevalence Rate
C-Section	Caesarean Section
CYP	Couples Years of Protection
DCO	District Coordinating Officer
DHQ	District Headquarters
DOH	Department of Health
EDOH	Executive District Officer Health
EmONC	Emergency Obstetric and Neonatal Care
EPI	Expanded Program for Immunization
FIS	Financing Information System
FP	Family Planning
FRU	First Referral Unit
FWC	Family Welfare Centre
FMO	Female Medical Officer
GOP	Government of Pakistan
GP	General Practitioner (medical doctor)
HMIS	Health Management Information System
HSR	Health Sector Reform
ICDS	Integrated Child Development Service
IMR	Infant Mortality Rate
IT	Information Technology
IUD	Intra-uterine Device
JSY	Janani Suraksha Yojana
LHS	Lady Health Supervisor
LBW	Low Birth Weight
LHV	Lady Health Visitor
LHW	Lady Health Worker
MDG	Millennium Developmental Goal
MICS	Multiple Indicator Cluster Surveys
MIS	Management Information Systems
MMR	Maternal Mortality Rate
MNCH	Maternal, Newborn and Child Health
MOH	Ministry of Health
MSU	Mobile Service Unit
NGO	Non-Governmental Organization
NMR	Neonatal Mortality Rate
NPPI	Norway Pakistan Partnership Initiative
OPD	Out-Patient Department
PHC	Primary Health Care
PMR	Peri-Natal Mortality Rate

PNC	Post-natal care
PPHI	People's Primary Health Care Initiative
PPP	Public Private Partnership
PWP	Population Welfare Program
RBFM	Result Based Financing Mechanism
RH	Reproductive Health
RHC	Rural Health Centre
RHS-A	Reproductive Health Service – Type A
SBA	Skilled Birth Attendance
SWAP	Sector Wide Approaches
THQ	Tehsil Head Quarter
U5MR	Under five mortality rate
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WFP	World Food Program
WHO	World Health Organization
WTP	Willingness to Pay

EXECUTIVE SUMMARY

An Overview of MNCH Situation Analysis in NPPI Districts

Maternal and child health status in NPPI districts is low and significantly lags behind national estimates. Although cause of death data disaggregated by districts is unavailable, national level data suggests that targeted interventions are needed in the peri-natal area with attention to institutional deliveries, newborn care and EMNOC services which are presently over-looked areas, as well as revamping of existing maternal and child care service elements such as immunizations, ANC & PNC visits, and preventive care check-ups for children.

MNCH service coverage is provided by both the public and private sectors however coverage levels fall much below MDG targets. There has been an increase in coverage of maternal services in NPPI district over the last five years driven by increased private sector usage, however close to half of pregnant women are still uncovered with coverage significantly low amongst the poor and those residing in peripheral areas. Both maternal and child care outputs at government facilities have remained stagnant and volume of service is particularly low at FLCFs with bypassing of primary tier by clients in favor of hospitals even for routine services such as ANC, deliveries and child illness visits. Outreach programs show a mixed picture with drop in EPI coverage over the last five years however contraceptive use has shown a modest increase and is probably due to the LHW program.

The under-developed context of NPPI districts poses challenges in utilization of health care services in terms of i) low levels of retention of skilled staff; ii) lack of peripheral outreach of both public and private sector services, iii) poorly equipped and stocked facilities and limited opening times; iv) high transport costs; v) poor community awareness for maternal care and child preventive services along with low coverage of LHW program; and vi) community inability to pay resulting in marginalization of preventive and promotive care.

These constraints to service utilization are aggravated by low priority and lack of programming of MNCH services at district level, insufficient administrative control over staffing, inadequate budget and supervision, and need for clinical and managerial skill building.

Proposed Financing Measures

As both supply and demand side factors are responsible for low MNCH service coverage therefore result based financing mechanisms need to be simultaneously placed on both the supply side and demand side of the health care system. Given the NPPI context, strategic placement of financing measures is needed to i) pull in government staff into government EMNOC centers and FLCFs, ii) enhance and ring-fence supplies and equipment budget for MNCH; iii) supplementation of government provision with private sector services, and iv) increasing client access to transportation and commodity purchase. Specific Measures include:

A. Supply Side Measures

i) *Provider incentives:* Provider incentives for government staff involving topping up of basic salary with volume based payments are required to address the acute shortage of staff on ground and pull back government staff from private practice during government service hours. These need to be calibrated by staff cadre as well as remoteness of health facility. Provider incentives are required across all NPPI districts with higher scales for Tharparkar, Kashmore and Qambar where staff shortage is particularly acute.

ii) *Budgetary topping:* MNCH related drugs and equipment budget needs to be enhanced and ring-fenced for all NPPI districts with heavier investment in Kashmore, Ghotki, Tharparkar, Umarkot, and Larkana districts where government facilities and coverage are poorest.

iii) *Commodity vouchers*: In districts of Kashmore, Ghotki, Tharparkar, Umarkot, and Larkana districts where outfitting of government services is particularly poor commodity vouchers in addendum to enhanced budget can be provided for purchase of necessary supplies from retail outlets. Key areas for commodity vouchers are delivery kits, diarrhea kits and IV supplies kit.

Purchasing of Private Sector Services

Health staff to population ratios will still remain sub-optimal even with filling in of all government staff vacancies unless supplemented with private sector services. However this should only be limited to those private practitioners who do not have a dual affiliation so as to avoid negative inducement to health staff for strengthening private practices at the cost of public sector facilities.

i) *Provider incentives:* Given that the private sector mainly comprises of individual practitioners rather than organized health care facility set-ups, individual practitioners will need to be targeted. Provider incentives involving volume based payments can be given in each district to private practitioners for providing services in pre-identified public health care outlets in that lack required government staff. Up to 50% of fee charged in comparable private sector facilities is acceptable to service providers and on average works out to be Rs.50 for ANC, PNC, and well baby visits, Rs.300 for child OPD, Rs1000 for deliveries and Rs.5500 for C-Section.

ii) *Service Vouchers:* Purchasing services from private sector facilities through use of service vouchers can be applied in Ghotki, Larkana, Badin, Shikarpur, and Nawabshah districts where well developed and organized private sector facilities are present. Use of case based vouchers has better administrative and political feasibility as compared to management contracts and private health facility contracting. Cost of service voucher based on low client willingness to pay are Rs.600 for ANC and PNC visits, Rs.2000 for delivery, Rs.13000 for C-section, and Rs.400 for child OPD. Service voucher costs based on higher willingness to pay are Rs.300 for ANC and PNC visits, Rs.1350 for delivery, Rs.12500 C-section, and Rs.150 for child OPD.

B. Demand Side Interventions

Demand side incentives are proposed to address low awareness levels and client inability to pay for services.

i) *In-kind client incentive:* These can be used to target ANC, delivery, PNC & newborn care and child preventive care visits in the first year of life and are commonly preferred by all stakeholders to cash incentives. In-kind incentives can be implemented in districts of Tharparkar, Kashmore, and Qambar which have the poorest health system performance amongst the NPPI districts.

ii) *Transportation vouchers*: Transport vouchers are needed in most NPPI districts of Qambar, Jamshoro and Nawabshah to offset the heavy cost of transport for deliveries and EMNOC. Transport vouchers while offsetting the expense burden on clients of private transport can also serve to pull in private transport to remoter areas. Mean voucher value of Rs.700 is required for delivery and EmONC services with a range of Rs.400-700 depending on inter-district variation in terms of physical access.

iii) Existing *targeting mechanisms* are poor and proposed targeting for both service and transport vouchers and in-kind incentives to clients can either be piggybacked on the Benazir Income Support Scheme or involve universal provision of vouchers and in-kind incentives to all pregnant mothers and children under 1 years in the more poverty stricken and peripherally located Tehsils or Union Councils. Separate selective targeting schemes will be administratively complex and involve high transaction costs.

Highest amount of financial and technical investment will be required for the districts of Tharparkar, Kashmore and Qambar which have the lowest aggregate score in terms of health system performance. Comparatively lesser assistance will be needed by the middle ranking districts of Umarkot, Larkana and Jamshoro followed by the relatively higher ranking districts of Badin, Ghotki, Shikarpur, and Nawabshah.

Over-arching Governance Measures Needed

For effective implementation of result based financing measures overarching governance related measures will be needed as outlined below:

- *Human resource strengthening* would require filling of vacant, provision of listed supportive measures for female staff safety and security, provision Class-I administrative powers on trial basis as given to PPHI to strengthen district administrative control over staff retention, clinical training of staff as well as use of general cadre staff for EMNOC services in districts having more acute staff shortage.
- *Improvement of health facility services* would require increased allocation and ring-fencing of budget for commodity, equipment and monitoring for MNCH, development of red-stock out checklist, improved frequency and quality of supervision, and political sensitization of district managers regarding MNCH services.
- The *government's stewardship role* involving strategic planning, purchasing and monitoring of services will need to be strengthened. Key measures would involve i) sensitization and capacity building of district health managers, development of district health plans linked to annual budgetary processes, retention of trained managerial staff for at least a period of 2-3 years, enhanced practical linkages between MS DHQ, EDO-Health, PPHI, and community outreach under the umbrella of a district health plan, increased information collection and frequency of field based monitoring. It would also require enhanced coordination with private sector, development of accredited lists of private practitioners, minimum standards of care and skill building of private sector.

Implementation Modalities

Implementation of result based financing schemes in NPPI districts will require four components. Firstly, strong service improvement role of government is required. Secondly, an independent agency for management of financial rewards and monitoring of service volume will be required for placement for transparent and efficient functioning and has overwhelming acceptance from all stakeholders. Thirdly, external validation is needed on annual basis to provide robust results on actual service coverage and trickle down effect to community. A provincial based party can be assigned to annually conduct validation checks in each of the districts. Fourthly, technical assistance is needed in three key areas of clinical training for health staff, managerial training for health mangers, and sensitization training of district stakeholder. These can be provided by a single out-sourced agency or different agencies.

All four functions involving improved service provision, independent management of financial awards, external validation and technical assistance will require oversight by broad based committees at both district and provincial levels.

Way forward would involve piloting of financing interventions in few selected districts accompanied by robust operations research before expanding to other districts. Law and order is an overarching issue that needs to be addressed for either private or public sector to succeed in some of the surveyed districts.

Section 1. INTRODUCTION

1.1 NPPI Financial Feasibility Study

This study was commissioned by MNCH Program Sindh and UNICEF Sindh for a feasibility assessment of use of Result Based Financing Mechanisms (RBFMs) for improving Maternal, Newborn and Child Health (MNCH) care in rural Sindh. The study is part of the Norwegian-Pakistan-Partnership Initiative which intendeds to provide catalytic support to improve MNCH in 10 selected rural districts of Sindh province. Flexible funding of $50 million will be provided by the Norwegian grant to strategically strengthen health system through use and implementation of result based disbursements (NPPI 2008). Financing will be provided over a five year period (2008-2012) and will be targeted to the 10 low performing districts of Sindh which include: Jamshoro, Badin, Tharparkar, Umarkot, Nawabshah, Larkana, Kambar, Shikarpur, Ghotki and Kashmore. This is an exploratory study aimed to provide a strategic direction on use of RBFMs in the selected districts.

1.2 Background of Result Based Funding Mechanisms

Slow progress in improvement of MNCH services through traditional funding methods involving input based funding to discrete projects has shifted attention to use of output based financing for quick and radical achievement of targets. The common purpose of output based financing is to improve health system performance through strategic and innovative use of financing measures. Output based mechanisms are diverse and can be placed either at the supply or demand side of health service provision or involve a mix of mechanisms targeting both supply and demand. Amongst the more commonly known supply side mechanisms are Sector Wide Approaches (SWAPs), contracting of health services and provider pay-for-performance incentives while popular demand side mechanisms include Conditional Cash Transfers (CCTs) and Vouchers.

Available research evidence shows that the implementation of result based funding mechanisms is a politically and organizationally challenging area, and has produced mixed results that are often highly context specific. Hence there needs to be careful consideration of both positive and negative impacts of result based funding mechanisms in a given setting and what modifications need to be put in place to protect quality, equity and efficiency aspects of MNCH services.

The success and failure of result based funding mechanisms are affected by a number of inter-linked factors. The organizational context is a major factor and influences the working of result based funding mechanisms through availability of financial resources, equipped facilities, staff and supplies; presence of adequate MIS and financial systems; and effective planning, budgeting and management practices. Political feasibility is another key factor with political hindrances or support in implementation of such schemes affecting whether they get initiated, the scale at which they are implemented, the resulting appropriateness of implementation and provision of appropriate policy and technical support. Furthermore, health seeking behavior of patients and clients also influences the success of result based funding mechanisms as client awareness and valuation of service and its underlying factors socio-cultural and economic factors influence the uptake of MNCH services. Organizational context, client behavioral dynamics and political support vary from country to country underscoring need for financing mechanisms to be designed with relevance to the local context. (Detailed literature review and references are provided in Section 2)

This study in recognition of the complex nature of result based funding mechanisms explores in-depth the feasibility of their implementation so as to come up with locally relevant, politically feasible and administratively simple financing mechanisms for improvement of MNCH services in selected NPPI districts.

1.3 Aim & Objectives

The study explored health systems of selected rural districts to come up with locally responsive, politically feasible and practically workable strategies for improving MNCH outputs. Specifically it aimed to examine how use of different financial modalities may improve MNCH outputs and included the following objectives:

- To identify where to place funding (e.g. Supply or demand side; Public or Private sector)
- To identify recipient target group (e.g. Community/Service providers/District managers)
- To identify the type of funding mechanism or mix of mechanism to be implemented (e.g. Vouchers, CCTs, provider incentives, contracting, district awards) and its accompanying strengths and risks
- To identify what supportive measures are needed in place for implementation of out-put based financing mechanisms.

1.4 Outline of Result Based Financing Mechanisms

1.4.1 SWAPs (Sector Wide Approaches)

Sector Wide Approaches (SWAPs) involve topping up of operational funds at the policy level conditional to achievement of targets agreed between policy makers and donors. Intended target audience is of policy makers and are used by donors to negotiate policy priority to particular service outputs while providing a relatively free hand for implementation. They present the 'second generation' approach to donor funding with a move away from input based disbursement to discrete project to funding linked to negotiated outputs. SWAPs can be applied at national, provincial or district levels.

1.4.2 Contracting

Contracting principally involves purchase of specified health services by the government from other providers for a specified time period based on a formal written agreement or 'contract' between the provider and purchaser. It is a mechanism of institutional reform and aims to increase the stewardship role of government, involving a shift from direct health service provision to strategic purchasing of services and their enhanced monitoring and regulation. It is intended to improve the quality, cost efficiency and transparency of services and relies on use of a detailed performance based contract and the engendering of competition. Contracting is of particular use where the government does not have infrastructure to provide or is a poor manager of health services.

1.4.3 Provider Incentives

Provider incentives are an institutional reform mechanism linking service provision with performance awards for health care provider. Payments can either be linked to volume of

service and made on per case basis or on number of client visits or alternatively involve a performance bonus linked to service outputs. Provider incentives have two principal uses. They can be used to improve service performance of government health staff or alternatively to purchase services of private practitioners for service provision at government health facilities with level of compensation linked to service output.

1.4.4 Client Cash Transfers [CCTs]

Involves a cash transfer to client/ patient at the health service delivery outlet for availing specified health services. It is an aggressive demand inducing mechanism and newly introduced for improved utilization of selected health care services.

1.4.5 Vouchers

Vouchers principally target client related financial barriers to service utilization. Voucher is a pre-paid card or token provided to clients for a particular service or package of service and is used to obtain specified service from identified health service providers at partial payment or free of cost. Service provider can be either from public or private sector. Vouchers intend to increase access to health services and are known for their pro-poor value. They are also expected to improve quality of service provision by stimulating competition between service providers.

1.5 Study Components & Methods

The study was a multi-dimensional and mixed method study involving triangulation of existing evidence and primary data.

- Multiple Components: The study comprised of 4 main components: i) organizational analysis; ii) expenditure analysis; iii) political risk analysis; and iv) client behavior analysis.

- Mixed Methods: Both quantitative and qualitative tools were used and included: i) in depth interviews of provincial and district stakeholders; ii) focus group discussions with health facility staff; iii) focus group discussions with LHWs, mothers and fathers of children under 5 years; iv) review of MIS and financial systems of MNCH related programs; v) review of programmatic data related to MNCH; vi) review of budgetary data where available; vii) analysis of patient expenditure; vii) review of evidence from other settings on RBFMs.

- Cross-cutting levels: The study collected data across provincial, district, and health facility and community levels.

A detailed overview of components and methods is provided in Table 1.1.

1.6. Data Collection

The study relied on a mix of secondary and primary data as detailed below

a) Primary data collection

Key elements of primary data included i) in-depth stakeholder interviews, ii) focus group discussions (FGDs) with health staff, iii)focus group discussions (FGDs) with communities, iv) review of government MIS and financial systems, and v) review of implementation systems and performance records of similar financing models in Pakistan. A list of identified provincial and district stakeholders was developed for conduction of in-depth interviews, in consensus with the MNCH Program Sindh and UN agencies and further interviews were added through snowballing. MIS and financial system review included the EDO Health systems, the PPHI system, and key vertical programs including LHW, EPI and Population Welfare Programs. Conduction of FGDs of health staff and community was initially based on cluster sampling of RHC and BHUs in each district. However, this was later revised by AKU in the larger interest of the study and the sampling frame of the baseline study was followed to allow for better coherence in findings of the two studies.

Data included: data included in this report is summarized in table 1.1.

b) Secondary data collection

Table 1.1: Data Included

Components	Number of FGDs / IDIs	Details
Catchment Communities of BHUs and RHCs	60 FGDs	FGDs involved 489 participants
Health Facility Staff of BHUs and RHCs	10 FGDs	FGDs involved 122 participants
District Stakeholder	47 IDIs	IDIs with EDO- H, MS of DHQ/ Civil hospital, district PPHI coordinators, DPWO, DCO and Nazim
PMA Representatives	10 IDIs	PMA representatives/ prominent private practitioners
Provincial Stakeholders	15 IDIs	IDIs with Health, Finance and P&D Departments, PPHI and DSSP.
Review of Management Information system	Review of MIS including HMIS, DHMIS, LHW, EPI, WFP, Population Welfare and PPHI.	
Review of Finical Flow and Information System	Review of financial flow and information systems of EDO Health, DHQ/ Civil Hospitals, PPHI and vertical programs.	
Site Visits and Meetings of Existing / Recent Incentive Based Models	such as the World Food Program, Population Welfare RHS-A Centers, FIGO project and Tawana Pakistan Project.	

Secondary data collection involved i) review of published literature, government programmatic and budgetary records, and commissioned study reports, and ii) analysis of household expenditure data from NPPI baseline study.

A systematic search of international peer reviewed literature was conducted on result based financing mechanism using Cochrane online database and was supplemented by relevant grey literature. Public sector data was collected and reviewed on available infrastructure, staffing, service outputs, authority tiers, fund flows and budgets. In addition, relevant research reports of commissioned studies in Pakistan were reviewed and included quality of care and performance assessment studies as well as studies on devolution, health care financing and public-private partnerships. Expenditure analysis involved input on tool development for baseline household study and use of collected raw data for development of cost packages.

Further details on methods and data collection are outlined separately in each chapter.

1.7 Analysis

Findings from different sections of the study were triangulated and synthesized to form a coherent picture of existing health system gaps and needed financing mechanisms as well as administrative capacity and political feasibility for these mechanisms. A systematic analysis was undertaken of both qualitative and quantitative data. Qualitative analysis development of thematic codes for interview and FGD data and followed by both manual as well as use of NVivo 8 for analysis. EXCEL and SPSS were used for analysis of quantitative data. Specific areas of analysis included:

- Identification of snags in delivery of MNCH service
- Identification of demand side barriers
- Assessment of MNCH expenditure and Willingness to Pay
- Assessment of institutional capacity for RBF
- Determination of political feasibility for RBF
- Identifying lessons learnt from global & local experiences
- Based on findings of above, a mix of financing mechanisms and their implementation modalities were proposed.

Table 1.2 Overview of Study Components, Underlying Areas and Research Methods

Components	Areas Examined	Methods
Organizational Analysis	Supply side constraints to service delivery Governance issues Review of MIS systems Review of financial systems	Stakeholder interviews FGDs with service providers Document review Budgetary Review Spot-checking Review checklists
Expenditure Analysis	Cost package development Willingness to Pay	SPSS analysis FGDs with community
Political Risk Analysis	Political preference & fears for different RBF	Stakeholder interviews Group discussions with HF staff Group discussion with community Document review
Client Behavioral Analysis	Barriers to MNCH utilization Existing expenditure Willingness to pay	FGDs with community: Mothers Fathers LHWs

1.8 Report Layout

The report is divided into 5 sections:
Chapter 2 provides a synopsis of global evidence on result based funding mechanisms in terms of effects achieved as well as factors associated with success or failure
Chapters 3, 4 & 5 review the overall health system identifying demand and supply side constraints affecting MNCH outcomes in NPPI districts
Chapters 6&7 give a detailed review of existing financial and monitoring information systems and their absorptive capacity for result based financing
Chapters 8, 9 & 10 examines political feasibility of result based financing mechanism, provide cost packages, proposes targeting systems and outline lessons on implementation modalities gained from other programs
Chapter 11 provides a summary of findings and proposes way forward in NPPI districts

Section 2. GLOBAL EVIDENCE ON RESULT BASED FINANCING MECHANISMS

2.0 Introduction

This section reviews global evidence based on experience of result based financing mechanisms in developing countries examining the extent of implementation of so far in developing countries, effectiveness of result based financing mechanism and factors underlying success and failure with a view to provide lessons for the NPPI districts

2.1 Methods

A systematic literature search was conducted using Cochrane online database and supplemented with grey literature including commissioned study reports, summary of government projects, and thesis work in this area. Primary emphasis was to examine work related to developing countries and the MNCH area with expansion to other service contexts in cases where little material was found. Material examined included rigorous evaluations which were comparatively fewer in number and a larger body of material involving case descriptions and review articles.

2.2 Overview

In recent years there has increased international interest in use of result based financing mechanisms as a means for quick and radical improvement of health care systems. This has been primarily due to slow progress in improvement of government services in developing countries through traditional funding methods involving input based funding. Output based mechanisms are diverse and can be placed either at the supply or demand side of health service provision or involve a mix of mechanisms targeting both supply and demand.

Available research evidence shows that experience with the implementation of result based funding mechanisms is still emerging in developing countries, has produced mixed results that are often highly context specific and needs more rigorous impact assessment. Additionally implementation is a politically and organizationally challenging area with the wider health system and political context playing a key role in success or failure of these mechanisms.

2.3 Supply Side Mechanisms

2.3.1 SWAPs (Sector Wide Approaches)

The mechanism*:* Sector Wide Approaches (SWAPs) involve topping up of operational funds at the policy level conditional to achievement of targets agreed between policy makers and donors (Cassels 1997). Intended target audience is of policy makers and are used by donors to negotiate policy priority to particular service outputs while providing a relatively free hand for implementation. They present the 'second generation' approach to donor funding with a move away from input based disbursement to discrete project to funding linked to negotiated outputs (Walt 1999). SWAPs can be applied at national, provincial or district levels.

Requisites: SWAPs are dependent on agreed output goals between donor and recipient government as well as political ownership, ability for strategic planning, leadership and

innovative management, and absorptive capacity for management of funds on the part of recipient government (Walt 1999). It also requires participation of private sector providers in planning and implementation for effective achievement of results. Furthermore, SWAP-like arrangements require frequent joint review meetings and a single agreed upon and robust monitoring system as opposed to reliance on multiple monitoring systems.

Origin and Application: SWAPs were introduced by international donors in the 1990s as a means of health sector reform in developing countries. They have been primarily applied in African countries including South Africa, Mozambique, Zambia and Uganda as well as certain Asian countries such as Cambodia and Bangladesh. Arrangements have been mainly at the national level and scope of application to increase the performance of provinces and districts has not been fully explored. Recently, there has been revival of interest in SWAPs based on lessons learnt from past experiences.

Effect: Evidence on SWAPs is mainly descriptive and rarely provides an established link with improved outcomes. So far conclusive evidence is limited to increase in immunization rates and supervised deliveries (Walford 2007). Some effect has also been found in terms of increased ORS use and doctor visits for child diarrhea cases, medicine availability and improved TB cure rates (Walford 2007). However lack of standardized assessments of SWAPs makes it difficult to generalize findings obtained from individual case studies.

Over-arching issues: Results of SWAPs have been diluted due to both political and administrative issues related to their design and implementation. Politically, SWAPs present the danger of becoming a top down agenda and require political commitment at both the top and bottom tiers of the health system (Jeppsson 2002). In addition, donor pressure to disburse funds and corruption in fund utilization by recipients has also been linked with sub-optimal results. Moreover, strong control by national and provincial as compared to district stakeholders has been found to increase centralization and reduced required flexibility and ownership for responsive implementation (Walt 1999).

Administratively, SWAP like arrangements require careful selection of few output indicators having high impact and third party validation of improved outcomes. Capacity for SWAP related flexible planning and implementation has been generally poor in developing country governments, technical assistance has come in late, transfers in government have further eroded available capacity, while bureaucratic inter dependence on various government departments have delayed disbursements (Walt 1999, Jeppsson 2001). Positive atmosphere, strong stable leadership, flexibility and adjustment as opposed to use of rigid blue-prints and reduction of red-tape have been key factors associated with success (Jeppsson 2002, Pfeiffer 2003, Pavigani 1999)

2.3.2 Contracting

The mechanism: Contracting is a mechanism of institutional reform and aims to increase the stewardship role of government involving a shift from direct health service provision to strategic purchasing of services and enhanced monitoring and regulation (Taylor 2003). It principally involves purchase of specified health services by the government from other providers for a specified time period based on a formal written agreement or 'contract' between the provider and purchaser. It is intended to improve the quality, cost efficiency and transparency of services and relies on use of a detailed performance based contract and the

engendering of competition (Walsh 1997). Contracting is of particular use where the government does not have infrastructure to provide or is a poor manager of health services.

Types of Contracting: There are two types of contracts: 'management contracts' involve out-sourcing the management of government facilities through provision of operational funds and administrative control to the contracted agency while 'service delivery contracts' involve leasing out of private sector facilities or provision of particular service.

Contractors can be from the private sector as is more often the case, or from other government agencies or semi-autonomous government agencies. The former process involving leasing out of services to private/ NGO sector is called 'contracting out' while the latter process involving involves leasing out within the government is called 'contracting-in'.

Requirements: Contracting requires a well developed market to provide adequate competition for contracts, use of an independent agency for awarding and management of contracts, and clearly defined performance based contracts (Mills 1998). It is also dependent on effective monitoring by the purchaser and presence of a trust based relationship between purchasers and contractors.

Origin and Application: Contracting originated in OECD countries with UK's National Health Service reform being the most radical example of a health service delivery system based on competitive contracting involving contracts with both private as well as government health facilities. Until recently it had extremely limited application in developing countries however supported by high donor interest contracting is being increasingly applied to replace or supplement weak government services. Contracting has been implemented in Saharan Africa and parts of Asia including Pakistan, Afghanistan, Bangladesh, India and Cambodia. Results are mixed so far and are highly influenced by country context.

Effectiveness: Standardized assessments of contracting are few and emerging. Existing research shows that contracting has resulted in increase in immunization coverage, ante-natal visits, number of children given ORS and general curative care utilization (Loevinsohn 2005). While contracts in general have worked in roll out of services to remote areas comparative penetration into the more hard to reach areas has been lower (Palmer 2006, McPake & Hongoro 1995). There has been little known about impact on technical quality of services however evidence from OECD countries shows less time to process of care as opposed to volume (Meagher 2003, Stewart 1993). Contracting has been seen to result in better availability of drugs and contraceptives and improvement in health facility maintenance and cleanliness in some settings. Overall, effects of contracting are highly variable differing across diverse settings and are dependent on a number of inter-related factors (discussed below). Hence while contracting can potentially improve aspects of service delivery, the exact output and level of its achievement is likely to vary across settings.

Lessons learnt: Contracts in developing countries are usually input based and fail to specify output services with interpretation of contractual output depending on contracted provider. While move to performance based contracts needs to be made, a balance must be kept in extent of detail specified as sophisticated contracts require high cost of monitoring. Providers deliver even on loose contracts if there is like-mindedness and coordination between purchaser and service provider (Gilson 1997). In general, capacity to write contracts and accompanying monitoring systems and skills has been found to be weak amongst both purchasers and provider.

The presence of an organized private sector in health care highly varies within developing countries, however even where private markets are available, interest can be low for contracting with government due to fear of rent-seeking pressures, delayed disbursements and loss of independence (Zaidi 2007, Mills 1997). Both the private for-profit and non-profit sectors prefer an independent intermediary for management of contracting. Political ownership of contracting has been linked with responsive implementation with most case studies showing indifference or hostility to use of contacting amongst government managers.

In summary, effectiveness of contracting is linked to the nature of the written contract, competitiveness of bidding, type of relationship between government contractors and private providers and political acceptance of contracting (Zaidi 2007, Palmer 2006).

2.3.3 Provider Incentives

The Mechanism: Provider incentives are an institutional reform mechanism linking service provision with performance awards for health care provider. Payments can either be linked to volume of service and made on per case basis or on number of client visits or alternatively involve a performance bonus linked to service outputs. Provider incentives have two principal uses. They can be used to improve service performance of government health staff or alternatively to purchase services of private practitioners for service provision at government health facilities with level of compensation linked to service output.

Origin: Provider incentives have an established history in OECD countries while application in developing countries is very limited (Politt 1988). They are part of the New Public Management Agenda involving a series of best practice lessons borrowed from the private sector for civil service reform. They have typically involved provision of more attractive salaries to government service providers and managers in OECD countries through adoption of i)market pay scales, ii) performance bonuses to top up salaries or iii) or case or volume based payments. More recently in India, provider incentives have been used to buy into services of individual private practitioners for improving functioning of government facilities for MNCH and is particularly applicable for settings where there are chronic staff shortages.

Requirements: Increase in service outputs is heavily dependent on modality of payment e.g. capitation based, visit based, or lump sum increase in service. Volume setting standards for expected service need to be prepared to guard against over-use or under-use of service as well as development of minimum standards for quality of care (Walsh 1997). In addition supportive monitoring systems are needed to track outputs as well as movement as linkage of financial systems with outputs.

Effects: General findings from OECD countries show that provider incentives increase utilization of curative care at health facilities and in cases where they have been linked to preventive and outreach services have also resulted in immunization levels and home visits to patients (Barnum 1994). In developing countries they have had limited application as well as poor documentation of results. Available evidence shows provision of general curative health services by private practitioners in remote rural areas uncovered by government facilities as seen in South Africa (Palmer 2003) while increase in antenatal care, institutional deliveries and post-natal care has been seen in India as a result of provide incentives to both government and private providers (JSY 2005).

Over-arching issues: Caution needs to be exercised in terms of what services are incentivized and what is the modality of payment. In cases where there has been lack of specified emphasis to service providers on preventive care, there has been little change in preventive services as opposed to rapid increase in curative care (World Bank 2006). As opposed to flat salary scales, volume based re-imbursement has shown rapid increase in cases. However volume based compensations have been associated with 'skimming of the patient population' with less time given to more complicated and demanding cases as opposed to easier cases, and fewer visits to far-off located as opposed to closer located cases to fulfill service targets (Stewart 1999, Politt 1988). Volume based compensations have also been linked with over-provision of services and needs to be guarded against for curative care provision. Furthermore, administrative costs of provider incentives have been high requiring sophisticated monitoring and financial tracking systems.

2.4 Demand Side Mechanism

2.4.1 Client Cash Transfer [CCTs]

The Mechanism: Involves a cash transfer to client/ patient at the health service delivery outlet for availing specified health services. It is an aggressive demand inducing mechanism and newly introduced for improved utilization of selected health care services.

Origin: The mechanism of cash transfer to clients for selected health services is a relatively recent mechanism and has been borrowed from the education sector which has a longer experience of its application for increasing enrollment of school children. Extension of CCTs to health services originated in Latin American countries and experience of its implementation is primarily limited to this setting. There has been some limited expansion of CCTs to certain parts of Africa and lately to India. Within the health sector, CCTs have mostly targeted preventive services for mothers and children.

Requirements: Implementation of CCTs requires administrative capacity and financial transparency as well as clearly defined roles and responsibilities between the different administrative tiers. It also requires client behavioral and willingness to pay studies to determine which services to incentivize and determine level of incentives. Above all the availability of supply side factors like service infrastructure, human resources and medicine an essential is an essential factor needed for implementation of CCTs.

Effect: Compared to other result based mechanisms, CCT have had the most rigorous and well documented assessments. Results have shown high uptake of services in response to CCTs, with evidence seen in terms of improved nutritional outcomes (reduction in stunting, improved mental milestones, higher hemoglobin levels), increase in immunization levels, increase in child curative and preventive visits, and increased in pre-natal care visits and institutional deliveries (Rawlings 2004, Rivera 2004, Lagarde 2007, Barham 2007).

Over-arching issues: Effects of CCTs where found have been due to the demand induction power of cash-for-service. Cash payments received have usually not been spent on the intended clientele and hence there is little conclusive evidence on expected secondary benefit of poverty reduction and gender empowerment. The main issue related to CCTs is uncertainty in terms of long-term sustainability of client behavior with danger of reversion to old practices if CCTs are withdrawn. The Latin American contexts in which CCTs have been implemented raises issues of applicability to other geographical settings and although a large

scale project is underway in India its results post-CCT withdrawal are still awaited. Other demand related issues include unintended consequences such as increase in family size to avail cash benefits related to births. CCTs also fail to address the problem of geographical access as the payments are only made when the recipients have already reached the health facility and there are questions as to whether the remoter populations are benefiting from CCTs. Finally, CCTs are dependent on supply side factors which were mostly in place in the Latin American setting where it was implemented and in India were boosted through placement of provider incentives for service delivery (Heinrich 2007 & JSY 2005). Pilferages and misappropriation are potential concerns linked to CCTs however there is needed for more documentation in this area (Deverux 1994).

In summary, while CCTs have resulted in high service utilization in the MCH area, their effect on long term demand is questionable particularly when applied to settings other than Latin America.

2.4.2 Vouchers

The Mechanism: Vouchers principally target client related financial barriers to service utilization. Voucher is a pre-paid card or token provided to clients for a particular service or package of service and is used to obtain specified service from identified health service providers at partial payment or free of cost. Service provider can be either from public or private sector. Vouchers intended to increase access to health services and are known for their pro-poor value. They are also expected to improve quality of service provision by stimulating competition between service providers.

Origin: While food vouchers popularly known as food stamps have traditionally been used in OECD countries, the use of voucher for health services is a new mechanism and principally designed for application in developing countries. Application is as yet limited, and its origin and application has been chiefly confined to Latin American countries.

Requirements: Although vouchers present an attractively simple mechanism with potential for quick roll out of services, their implementation is linked to certain pre-requisites. Careful determination is needed of average cost of service prior to introduction of vouchers. Moreover, it is dependent on sufficient availability of health care services in the targeted area to provide service access, an adequate market to allow choice of provider and engender healthy competition and appropriate quality of services. Targeting systems also need to be developed for identification of needy groups and equitable distribution of vouchers.

Effect: Voucher is a relatively new mechanism and evidence on effectiveness is still emerging (Palmer 2004). Vouchers have been applied in the Reproductive Health area and results have shown increase in family planning visits, increased utilization of STI services and improved patient satisfaction (Borghi 2005). They have also been used for malaria control and resulted in increased use of bed nets (Kweku 2007). Although vouchers have also been tried for selected areas of child health, however results are as yet unclear. Potential of use for no-medical expenses, such as transport costs, also needs to be explored particularly for accessing emergency maternal, neonatal and child health care.

Over-Arching Issues: Vouchers have a pulling power over the health care market and have a potential edge over CCTs in increasing service access in remote areas. However, they principally address financial barriers related to client utilization and it is seen that service

uptake can be hindered by low social perception or intrinsic value of the targeted service for clients. Hence in certain socio-cultural settings vouchers need to be accompanied by awareness raising measures also. Vouchers have been found to have a high transaction cost for targeting, disbursement and tracking systems, ranging from 30-70% of total funds (World Bank 2008). Moreover, in case of curative services careful selection of service package is needed as there is risk of moral hazard involving service over use by patients and over-servicing by providers. Furthermore, while vouchers have increased service use in the poor their ability to reach the poorest is an area that remained underexplored.

In summary, vouchers involve a high administrative cost and also carry a risk of misappropriate targeting especially particularly needs to be examined when applied to non-Latin American settings.

2.5 Section Summary

- Results of output based mechanisms vary by country setting and are influenced by nature of implementation modalities, health system issues and political context.
- Most established effect documentation is seen for CCTs and least for SWAP like arrangements.
- Types of service outputs achieved are highly dependent on their specification and linkage with payment, presence of provider skills and extent of emphasis during monitoring.
- Presence of a private sector market is required for measures that involve purchasing of services such as contracting, provider incentives to private providers and vouchers.
- Transaction costs are lowest for SWAP-like arrangements are high for other mechanisms particularly vouchers.
- Output based mechanisms in general require an enhancement of the strategic role of government and need prior capacity building.
- Result based mechanisms are associated with political risks and include poor acceptability for measures involving purchasing of services as well as inappropriate targeting for demand side mechanism.

Table 2.1 Summary of Evidence on Result Based Financing Mechanisms

	Service Utilization	Health Systems Requirements	Issues / Constraints
SWAPS	Further research needed on linkage of SWAPS with improved health outcomes	Administratively easier financing mechanism Requires strong planning and managerial skills Requires careful selection of few output indicators having high impact	Danger of being a top down agenda Can result in increased centralization Corruption in fund utilization
Contracting	Mixed results varying by setting Lower coverage of hard to reach areas	Performance based contracts with protection of preventive services Competitive bidding and market presence Independent purchasing agency Overseeing too many contracted providers can be taxing for coordination.	Uncertain political acceptance Potential for kickbacks on contract awarding and financial disbursements
Provider Incentive	General increase in service outputs Lesser coverage for more demanding cases & remote populations	Cost versus quality trade off Cost versus equity trade off High administrative costs Standard setting for minimum quality of care	Political acceptance of provider incentives
CCTs	Well documented increase in service output, questionable sustainability Questionable access for more hard to reach groups	Adequate availability of services Transparent financial systems at health facility and above. Clearly defined roles of different administrative tiers Quality monitoring of services	Sustainability of client demand post-CCTs Negative spill over effects on demand for other services. Does not induce provider to improve quality of service Leakage of funds.
Vouchers	Evidence still emerging	Determination of average cost of services. Identification of needy groups for targeting High administrative costs Quality monitoring of services	Inappropriate distribution of vouchers. Induces provider to improve quality of care. Service over use

Section 3. HEALTH STATUS & HEALTH CARE UTILIZATION

3.0 Introduction

Section 3 provides a reference background context for subsequent chapters outlining challenges presented by low health status, sub-optimal service coverage and socio-demographic difficulties in delivery of MNCH services in NPPI districts and recommending broad areas of intervention.

3.1 District Context Poses Challenges In Terms of Physical and Financial Access, Low Community Awareness and Vulnerability to Communicable Diseases

Demographic and health indictors of selected districts are amongst the poorest in Sindh province. The districts comprise 29% of total province population and are thinly populated with population figures ranging from 1.5 to 0.8 million per district and population density between 72 to 1246 persons per square km (Table 3.1). Population is mainly scattered into small villages making access difficult to health care services. The districts are largely underdeveloped comprising of predominantly katcha houses, little access to tapped water while adequate sanitation facilities extend at best to two-thirds of households. Adult literacy is confined to a third of the population in most of the districts while female literacy figures are even lower at 37%. Evidence is indicative of high dependency ratio as seen by high levels of TFR and large household size. Poverty ranking of districts in Sindh province on a scale of 1-16 shows that most of these districts fall in the higher poverty bracket with ranking between 1-7. District level poverty incidence in Pakistan was determined through poverty indexes calculated using estimated non-monetary variables such as demography, education, housing etc, and were correlated with the respective weights coefficients.

Table: 3.1 Socio-Demographic Status

Districts	**Demography**							
Districts	Population[1]	% Households with Adequate Sanitary Facilities[1]	% Literacy[1]	Household size[1]	% Pacca House[1]	% Households with Tap Water[1]	Poverty Rank[2] (1-16)	TFR[1]
Badin	1,355,564	31	32	7.2	16	24	6	6.01
φ Umarkot	945,641	30	37	7	20	17	11	6.58
Shikarpur	1,013,510	73	37	7.7	12	2	1	5.83
Ghotki	1,333,962	51	40	6.9	16	1	4	6.38
φ Jamshoro	776,265	40	42	7.4	22	25	5	6.83
Tharparkar	1,251,455	17	36	6.6	6	6	10	6.41
Larkana	1,321,701	63	37	7.8	11	4	3	6.18
φ Qambar	1,218,228	63	37	7.8	11	4	3	6.18
φ Kashmore	641,056	34	28	6.7	13	3	7	5.72
Nawabshah	1,288,733	53	37	7.2	20	7	9	6.14

φ Data for newly created districts of Umarkot, Jamshoro, Qambar and Kashmore was taken from parent districts and actual figures are expected to be lower

Source: [1]MICS 2003-04; [2] SPDC 2007

The district context presents a number of key challenges for effective delivery of MNCH services. These include poor physical access to health care services due to scattered

population and low affordability of services. Moreover, unsafe water and inadequate sanitation result in continued vulnerability to preventable childhood infections while low literacy presents challenges in terms of health awareness in the community as well as supply of local female health staff.

3.2 Health Status of Mothers and Children Significantly Lags Behind Provincial and National Average

Although reductions in IMR and MMR have been prioritized by the Millennium Development Goals (MDGs) these continue to be high in Pakistan and even higher in NPPI selected districts. National U5MR is high at 94 per 1000 live births while national IMR has been fairly stagnant at 78 per 1000 live births with little decline seen during the 1990s (World Bank 2005). Although provincial estimates for Sindh are similar to national data, huge variations exist between the rural and urban areas with the developed urban districts in Sindh having an IMR of 46 and U5MR of 28 (MICS 2003-04). In contrast, in NPPI districts IMR ranges between 81-90 while U5MR ranges between 118-125, far exceeding both national and provincial statistics (Table 3.2).

MMR in Pakistan is high at 320 per 100,000 live births while comparative figure for Sindh is 314 per 100,000 live births (PDHS). Although disaggregated data by districts is not available for MMR however MMR in NPPI districts is estimated to be high as provincial figures are primarily driven by high maternal mortality in rural districts. Furthermore, available evidence indicates that there has been little improvement and even worsening of maternal mortality in Sindh as suggested by an inverse increase in sex ratio of males to 100 females from 110 males to 100 females to 112 males to 100 females (World Bank 2005).

Table 3.2 Health Status

Districts	MMR[1]	U5MR[1]	IMR[1]	% Undernourished <5 yrs Children[1]	TFR[1]
Badin	NA	124	87	48	6.01
φ Umarkot	NA	121	85	47	6.58
Shikarpur	NA	120	85	47	5.83
Ghotki	NA	125	88	48	6.38
φ Jamshoro	NA	114	81	45	6.83
Tharparkar	NA	123	87	48	6.41
Larkana	NA	118	84	46	6.18
φ Qambar	NA	118	84	46	6.18
φ Kashmore	NA	128	90	49	5.72
Nawabshah	NA	125	88	48	6.14
Sindh[2]	350	101	81	NA	4.3
Pakistan[2]	320	94	78	NA	4.1

φ Data for newly created districts of Umarkot, Jamshoro, Qambar and Kashmore was taken from parent districts and actual figures are expected to be lower

Source: [1]MICS 2003-04 ; [2] PDHS (2006-07)

3.3 Re-focusing of MNCH Service Package is Required in Line with Cause of Death Data

Maternal Deaths: Although breakdown of cause of death data by NPPI districts was not available, national level statistics show that majority of maternal and child related deaths and

complications occur around the peri-natal period. Maternal deaths are mainly due to postpartum haemorrhage (27.2%), puerperal sepsis (13.7%) and eclampsia (10.4%) and need to be addressed through institutional deliveries, quick access to emergency care and provision of postnatal services (PDHS 2006/07). These need to be backed with supplementary services such as antenatal care and health education of mothers and community. However services for delivery, emergency and post-natal care services have usually been overlooked by government health programs and the traditional emphasis on antenatal care at health facilities and community education through LHWs is unlikely to impact on maternal deaths and complications. The National MNCH Program is a new initiative targeting emergency obstetric care at government secondary tier and supervised deliveries at the community level however its implementation is still to be initiated at the district level.

Child Deaths: Amongst children the majority of deaths are due to birth asphyxia (22%), sepsis (14%) and prematurity (9%) occurring in the neonatal period while pneumonia (13%) and diarrhoea (11%) are major causes in the early childhood period (PDHS 2006/07). The data from NPPI districts showing high IMR and U5MR is suggestive of a high burden of deaths both in the peri-natal as well as the early childhood period. Moreover, close to half the children in NPPI districts are found to be undernourished placing them at increased risk of infections as well as deaths due to complications (Table 3.2). Re-focusing of child care services is required in line with cause of death data. Existing child health services selectively address preventive care areas such as childhood immunizations, Vitamin A supplementation and provision of preventive health messages however critical newborn care, acute child management and under nutrition remain largely overlooked areas and require expansion in existing range of services.

3.4 Health Service Coverage is Sub-Optimal and Improvement in Service Coverage Where Found Are Due to Private Sector Provision.

Utilization is low across the continuum of MNCH services in NPPI districts and rates are lower than the national average and provincial averages in most cases (Table 3.3). Upper Sindh districts of Larkana and Qambar and lower Sindh districts of Badin and Jamshoro are

Table 3.3 Service Utilization

Districts	* %Antenatal Care [1]	% Supervised Deliveries[1]	%Post Natal Care[1]	% EPI –Children (12 – 23 months) immunized upto Measles[1]	** %TT Vaccination [1]	% Use of Modern Contraceptive[1]
Badin	62	60	51	66	46	22
Umarkot	58	57	55	45	37	18
Shikarpur	59	50	23	53	25	18
Ghotki	51	60	59	26	25	27
Jamshoro	61	59	34	66	54	22
Tharparkar	37	27	38	28	28	10
Larkana	52	88	72	51	37	22
Qambar	63	59	61	68	58	21
Kashmore	42	33	15	25	23	12
Nawabshah	51	55	39	63	45	26
NPPI districts	54	55	45	49	38	20
[2]Sindh	42	38	35	72	62	26
[2]Pakistan	61	39	27	60	53	29

* Women who received 2 or more antenatal care visits

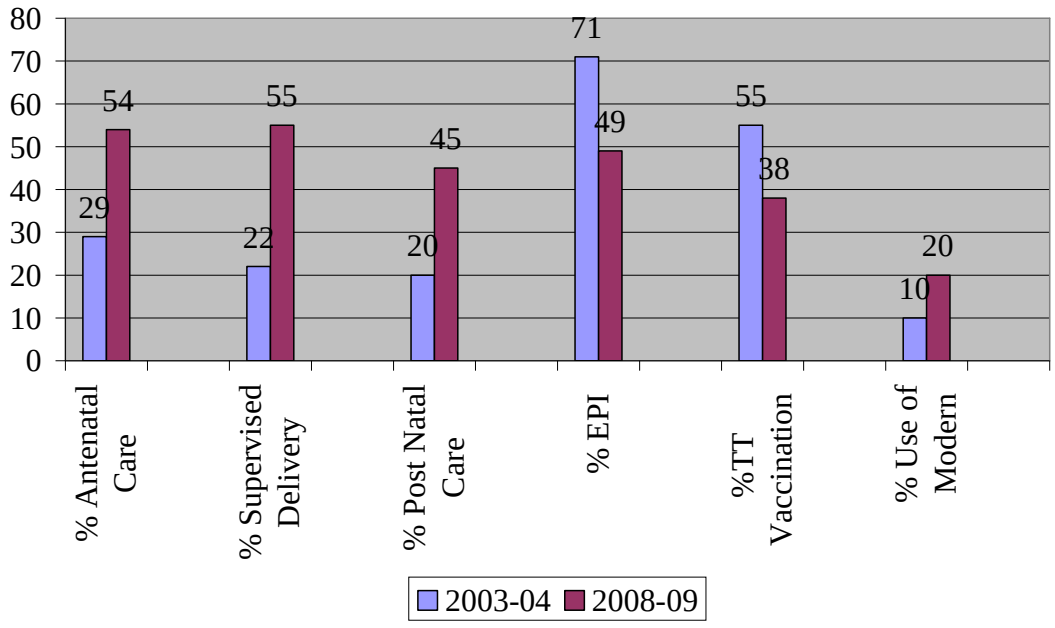
** Women who received at least 2 doses of Tetanus Toxoid

Sources: [1]Baseline study for NPPI, Sindh (2009); [2] PDHS (2006)

relatively better performing than others in terms of MNCH service coverage while Tharparkar, Kashmore and Nawabshah are the lowest performing districts.

Coverage of maternal care services has improved from last assessment in 2003/04 but continues to be lower than national service targets for achieving MDG goals (Figure 3.1). Antenatal coverage has increased from 29% to 54%; institutional deliveries have shown two fold increase while post-natal care coverage previously very low also has gone up to 45% (Table 3.3). Use of modern contraceptives is low across all districts with contraception being used by 20% of eligible population as compared to figures of 26% in Sindh and 29% in Pakistan. EPI services however have fallen over the last five years with a decline seen in both child immunization and TT vaccination (Figure 3.1). Service performance therefore present a mixed trend with increases in pregnancy care and delivery services unaccompanied by increase in vaccination and family planning services. Evidence suggest that coverage increase in maternal care services is due to increased contribution of the private while services such as EPI and contraceptive services that mostly fall under the public sector domain have shown little improvement (See Section 5 for details).

Figure 3.1 Service Utilization Trend



3.5 Section Summary

- Maternal, neonatal and child heath status significantly lags behind national estimates and would require building in targeted interventions in the peri-natal area as well as revamping of existing maternal and child care services.
- Government provided public goods such as EPI and family planning have remained stagnant or seen a decline while recent advances in pregnancy care provision and supervised delivery have been due to increased private sector provision. Strategies for service coverage therefore need to jointly address both public and private sectors.
- Given the under-developed context of NPPI districts, innovative supply side strategies will be needed to increase health service access such as through improved functioning

of peripheral government facilities, supplementary use of private sector and improved access to transportation (See Section 5 for details).

- Low literacy levels in NPPI are indicative of low community awareness and would require measures for enhancement such as through use of demand side financing measures and health education through LHWs and NGOs (See Section 4 for details).

Section 4. HEALTH SEEKING BEHAVIOUR

4.0 Introduction

Section 4 describes utilization patterns of MNCH Services in the ten districts of Sindh Province. It is divided into two subsections (A) review of utilization of MNCH services, barriers and provider preference; and (B) notable differentials by i) villages covered by Lady Health Workers (LHWs) versus uncovered villages, and ii) villages located close to health facilities areas versus peripheral villages.

4.1 Methodology

Data on client behavioral dynamics and health seeking pattern was collected across all 10 NPPI districts. The Focus group discussions (FGDs) were conducted with i) mothers of under five children; ii) fathers of under five children and iii) LHWs as community level key informants. Altogether 60 FGDs were conducted involving 489 participants with an average of 8-10 participants per FGD.

In each district two government FLCFs were selected randomly from the list of health facilities covered by the NPPI baseline study. FGDs with LHWs involved random selection of 10 LHWs from the list of LHWs attached with each selected health facility. FGDs with clients involved selection of a near and a peripheral village from the FLCF catchment and invitation to mothers and fathers of children under five years for voluntary and informed participation in the FGDs. One set of client FGDs was conducted in the villages close to FLCF within the distance of five kilometers and the other set of the FGDs was conducted in the peripheral villages of FLCF at the distance of 10-15 kilometers in each district. The villages were selected in consultation with the staff of the selected health facilities. The convenience sampling method was used for the selection of clients. Altogether 1 FGD of LHWs, 1 of mothers and 1 of fathers were held per health facility catchment.

Table 4.1 Summary of number of FGDs

Target Group	Number of FGDs per district	Total number of FGDs by category
Mothers	2	20
Fathers	2	20
LHWs	2	20
Total	6	60

Topic guides were developed for facilitation of FGDs and were pre-tested and adapted after a trail in one district. A note-taker and facilitator was assigned per FGD and transcriptions were prepared based on audio recordings as well as notes taken during the discussions. The responses were coded according to themes emerging from the discussions and analysis was done through NVIVO and manually.

A) UTILIZATION OF MNCH SERVICES, BARRIERS & PROVIDER PREFERENCE

Service utilization is low across the continuum of MNCH services and particularly low for maternal care services. Underlying reasons include lack of functional services, inability to pay for transportation costs and low awareness levels.
Across the ten districts most of the MNCH clients prefer private health care sector for the utilization of MNCH services as compared to public because of perceived better quality of care; round the clock availability of female staff; accessibility to diagnostic facilities; positive attitude of staff; hygiene maintenance, and perceived efficacy of treatment. The description of MNCH service by utilization patterns and barriers is given as follows.

4.2 Antenatal Care

"We don't have much money (to spend) to seek care in the absence of pain or ailment during pregnancy" A father (Islamkot, Tharparkar.

Utilization: The utilization of ANC was found to be very low in all the ten NPPI districts of Sindh. The utilization of ANC in the LHW uncovered areas is comparatively lower due to unawareness regarding the importance of routine ANC; long distance to health care facilities and non-availability of routine transport and as well as lack of funds to pay for ANC related costs. Mothers and fathers were unaware that pregnant women need care "check ups" during pregnancy without serious complication in the peripheral areas.

The most common narrative recorded was that most fathers and mothers do not consider it necessary to seek routine care during pregnancy without any reason such as complication/ailment or to determine the sex of unborn.

The mothers were relatively more aware about the importance of ANC within the LHW catchment areas than the mothers from peripheral and LHW uncovered areas. Some of the participants reported seeking ANC in case of minor complication as well on advice and Referral from LHWs.

"We do not consider it necessary to seek care without any ailment" (a father of village Laoowari of District Ghotki

Barriers: LHWs were of the view that poverty is major constraint towards the utilization of ANC.

"Those who don't get ANC…. the reason is poverty! While they (women) realize that how much ANC is necessary but they (women) use to say, from where we arrange money for transportation & other medicine" (A LHW from Daur Nawabshah).

Main barriers reported to low utilization of ANC are

- Unavailability of female staff and ultrasound in the public health care facilities.
- Lack of funds to seek care from private clinics
- Mistrust on public health System
- Non-availability of routine transport from periphery villages to health facilities

- Un involvement of fathers in maternal and child interventions particularly education and information activities

"We don't have to eat; who will go to get ultrasound" A mother (Naseer Abad, district Qambar).

Provider Preferences: The families who cannot bear the cost of the qualified professionals are dependant on traditional methods of traditional birth attendants.

4.3 Institutional Delivery

"Almost all of women delivers at home……We don't have other low cost option. If Dai (TBA) feels that delivery at home is not possible then she refers the mother to deliver at Civil (government) or private hospital" (A mother village Aadabio Tharparkar).

Utilization: Across all districts institutional delivery is not a norm and utilization is very low. The deliveries at the facilities are sought only in case of complication like prolonged labor or when TBA in home delivery is failed to handle the case. In addition to this, institutional deliveries are also sought if ultrasound findings suggest breach or serious complication. Mothers from well off and educated families prefer institutional deliveries mostly at private maternity homes. In addition, the fear of home based maternal deaths and unavailability of experienced TBAs in surroundings has also pushed some mother to seek institutional deliveries.

One of the most significant reasons for higher utilization of private sector of institutional deliveries was referral by government doctors to their own private setups.

"The Doctors from public hospitals are suggesting us to get check up from their private clinics as there are no facilities for conducting deliveries and also suggesting to get tests from private laboratories" (A father Aadil pur Ghotki).

Barriers: The main barriers to seek institutional delivery are:

- Mistrust: Fear of Caesarian Section and vaginal examination
- Accessibility (long distance and transport issues)
- Lack of diagnostic facilities and female provider for institutional delivery at public sector facilities
- High cost of Institutional deliveries in private sector
- Poverty : Lack of funds and unable to pay for institutional birth

"We do understand the importance of delivery at health care facility, because it is quite critical time, and one can easily manage the emergency during delivery at hospital (in comparison to home)…. But here isn't any maternity home near to our village, given that poor people cannot afford private clinics" (A father, Khanoth Jamshoro).

"If we get our women to deliver at hospital, doctor will surely operate … because she (doctor) is only interested in (making) money" (A Father from Kanoth Jamshoro).

"The reason to get deliveries from TBAs is poverty because we earn and can pay when we get crops of rice and wheat" (A mother, Village Aareeja, Larkana).

Provider Preferences: TBAs are low cost, easily accessible, well-known and trusted by communities.

"When I was pregnant, my husband decided for institutional delivery. But I did not agree I had overwhelmingly shown my wish to be delivered at home. I delivered first baby at private hospital (where) I suffered a lot of pains because of her (doctor), she did internal examination again & again. Later on when I delivered baby at home I was much better than that of hospital (A mother of Rajukhanani district Badin).

Besides this TBAs are providing additional services for newborn and mothers, including massage of newborn and mother. Poverty was cited as one of the key factor for home births and services of the TBAs and can be sought on credit if funds are unavailable.

4.4 Maternal Complications

"We get treatment in maternal complication because of fear of death or any complication or of miscarriage" (A mother, Naudero, Larkana).

Utilization: Higher recognition of need and seeking treatment in case of maternal complication is reported by majority of participants throughout the study districts. In case of maternal complications (like, excessive bleeding, vomiting and vaginal discharge) majority of mothers seek treatment at their earliest form nearest female lady doctor/LHV or other provider. If funds are not available to seek care, money is borrowed on interest is taken to seek the emergency obstetric care. Well-off families seek care from private sector because of perceived quality of care. The government health care facilities are utilized usually by those who cannot afford or cannot bear the cost of treatment of private sector. Across the ten districts mothers were found sensitized regarding the importance of skilled care in maternal complications.

Barriers: Non-availability of skilled female staff, medicines and lack of emergency and diagnostics facilities at public health facilities are the main barriers to seek immediate care. Even if an equipped public facility exists its limited timings force mothers to seek care from private sector clinics. In the peripheries again the problem of transport and long distances to the health facilities are crucial barriers. Moreover, unavailability of transport in peripheries makes it even difficult and expensive to seek emergency and obstetric care. The communities who are living in remote and hard to reach areas such as *Kacho*[1] (Jamshoro, Qambar, Shikarpur, Ghotki, Kashmore and Larkana) face lot of difficulties to access health facilities. Sometimes mothers have to only rely on traditional birth attendant (TBAs) and homemade therapies during maternal complications due to lack of funds and the access to health system issues. In addition to all these factors, law and order situation due to tribal conflicts in district Kashmore and safety and security issues particularly in North Sindh have also hindered the immediate care seeking during maternal complications.

"Though civil hospital of Shikarpur is near to us but because of tribal conflicts we cannot go to Shikarpur. We cannot even travel through the road which enters into city, that's why we have to go to Kandhkot (A father Oghahi community of district Kashmore).

[1] Areas spread along the banks of river Indus which is very hard to reach

Provider Preferences:
"The people who haven't a penny in hand seek care from civil hospital" (*A Father village Aadabio Tharparkar).*

For maternal complications (like, excessive bleeding, vomiting and vaginal discharge) nearest female lady doctor/LHV or other providers are immediately asked for care.

4.5 Family Planning & Immunization

Family Planning

"Everything is at God's will, after having pills twins have been born" (A Father, Larkana)

Utilization: Low contraceptive usage was observed throughout the NPPI districts. The LHWs reported 30 to 50% contraceptive usage in their catchment areas across all the districts but was not confirmed by the clients. The mothers and fathers of district Tharparkar and Umarkot reflected similarly with lower utilization of contraceptives primarily because of the unawareness and inappropriate supply of contraceptives in the peripheries. The failure of contraceptives is ultimately strengthening and encouraging the communities' fatalistic approach.

Barriers: The main barriers reported for the low prevalence rate of contraceptive are as follows;

- Consider using contraceptives as sin and religiously wrong
- Fatalism (the number of children is pre determined by God)
- Unawareness about the availability and usage
- Desire of having a male child
- Lapses in regular supply of contraceptives to the existing users
- Low effectiveness
- Side effects
- fear of infertility

"Some women of this area used injection but after getting this, they had started vaginal bleeding because of that we are scared to use contraceptives" (A mother, Humayoon Sarif Shikarpur).

Provider Preferences:
"No one refers or suggests us for getting contraceptive & we did not receive any contraceptives through any government employee or LHW" (A father from Umarkot).

The community is not been referred for family planning treatment with any of the providers.

Immunization

"They (Vaccinators/LHWs) come only for polio drops not for other vaccines even we don't receive any education about benefits of vaccine" (A mother of village Akheraj Umarkot).

Utilization: The acceptance and demand for vaccination programs at the community level is higher than the past. The trend has changed mainly after the Polio campaigns and awareness created through the messages disseminated through mass media. The clients are

willing to get vaccines for children and pregnant women mainly because it is free, provided at homes and due to perceived severe outcome of the disease such as polio

Previously there was some level of resistance to vaccines as it was believed that the vaccines were designed for the purpose of family planning. The majority of the clients was familiar with **only** Polio vaccine and lacked information about the routine vaccines and how to receive the routine immunization. They were also unaware where and when to seek routine immunization and for what diseases the vaccines are available. The peripheral communities of Tharparkar, Umarkot and Badin districts reported some resistance for vaccination due to side-effects of fever, especially in case combo vaccine.

Barriers: The main barriers identified to immunization services are:

- Lack of awareness about routine immunization
- Lack of information about the availability and schedule of immunization.
- Fear of side-effects
- Willing to receive vaccines at home but are reluctant to seek at health facilities

Provider Preferences: The routine immunization is received largely by the children from the villages where public health facilities are located.

4.6 Acute Childhood Illnesses

"Dr. Salim Sheikh is a child specialist and his diagnosis is very good & child recovers quickly from his treatment, he gives appropriate care & attention to the child, that's why people of his area trust him" (A mother from Larkana)

Utilization:High recognition of acute child illnesses and utilization of private sector was reported for the early management of child illnesses. The care seeking for acute child illnesses depends upon multiple factors including perceived severity of illness, distance and ability to pay. The well off and affording families receive care from private sector irrespective of severity of the illness and distance to the health care facility.
In the initial phase of the illness treatment is sought from BHU/RHC at the facility based villages and sometimes from LHWs. In the remote and uncovered areas first option is self medication and use of home remedies if unable to utilize health care system due to poverty or transport issues. In case of the severe illnesses such as pneumonia, fever and severe diarrhea even the remote areas clients prefer private sector due to its perceived quality of care.

"Boiled breast milk with black paper is given to child for pneumonia as a first line therapy" LHW, Ghous pur).

"We wrap Beatle leaves round the chest and back of the child as first line therapy. Mostly children get relief by this therapy, which we have been practicing since generations" (A father, Khnoth Jamshoro).

Barriers:
The clients showed mistrust on public health systems for care seeking of child illnesses due to poor quality of care, due to lack of confidence and fake medicines. The summary of barriers to the utilization of MNCH is given in table 4.2

Table 4.2 Summary Table: Barriers to Health Care Utilization

	MATERNAL CARE			
	ANC	**Deliveries**	**Maternal complication**	**PNC**
Barriers for low usage (list by order of priority)	Lack of awareness Lack of female staff Poorly functional health facilities Lack of faith in govt. Poverty Non-availability of transport Religious / Cultural / Gender Issues Safety and Security	Poverty Lack of female staff Poorly functional health facilities Lack of faith in govt. Non-availability of transport Religious / Cultural / Gender Issues Safety and Security	Poverty Lack of female staff Poorly functional health facilities Lack of faith in govt. Non-availability of transport Religious / Cultural / Gender Issues Safety and Security	Lack of awareness Lack of female staff Poorly functional health facilities Lack of faith in govt. Poverty Non-availability of transport Religious / Cultural / Gender Issues Safety and Security
	CHILD CARE			
	Newborn Care	**Immunization**	**Acute Illness**	
Barriers for low usage (list by order of priority)	Poverty Poorly functional health facilities Lack of faith in govt. Non-availability of transport Safety and Security	Poverty Poorly functional health facilities Lack of faith in govt. Non-availability of transport Safety and Security	Poverty Poorly functional health facilities Lack of faith in govt. Non-availability of transport Safety and Security	

Provider Preferences:
Private sector is more preferred for the treatment of acute child illnesses due to its perceived quality of care.

B) Differentials in utilization of MNCH services by location and coverage
In this subsection summary of notable differentials in terms of MNCH utilization patterns by location of health facilities and coverage of LHW program are described. The differentials are summarized at the levels of (a) LHW covered vs. uncovered areas and b) close to public health facility areas versus peripheral areas.

4.7 Utilization in Areas Covered by LHW versus Uncovered Areas

Main differences in terms of utilization of MNCH services by coverage of LHW program are summarized in Table 4.3.

Table 4.3 Main differences in utilization of MNCH services by LHW program coverage

LHW Covered Area	Uncovered Area
1. Low level of awareness regarding the importance of ANC services and higher utilization of iron folate and TT vaccines for pregnant women 2. Low level of awareness regarding post natal care 3. Low awareness among clients (Mother and fathers) related to routine immunization but high awareness of Polio drops 4. Some level of awareness regarding family planning methods as well as free availability of contraceptives if stock is available with LHW 5. Clients sometimes receive few essential medicine free of cost from LHWs to cure maternal and child minor ailment	1. Low level of awareness regarding the importance of ANC services and lower utilization of iron folate and TT vaccines for pregnant women 2. Low level of awareness regarding post natal care 3. Low awareness among clients (Mother and fathers) related to routine immunization excepts Polio drops 4. Low level of awareness regarding family planning methods and non availability of free contraceptives to clients 5. Clients have to buy essential medicine at cost from pharmacies to treat minor maternal and child ailments

4.8 Utilization in Close versus Peripheral Villages

Main differences in terms of utilization of MNCH services by distance to government health facility are summarized in table 4.4.

Table 4.4 Main differences in utilization of MNCH services by villages close to health facilities versus peripheral villages

Villages Close to Facilities	Peripheral Villages
1. Majority of the villages located close to the public health facility are covered by LHWs 2. Easy access to public health facility 3. Immediate care seeking for emergency maternal and child complication 4. Utilization of both public and private sector facilities 5. Lack of faith in public health system and some level of mistrust with private sector as well 6. Lower level of safety and security issues faced in utilization of health system	1. Low coverage of LHW program in most of the peripheral villages 2. Difficult access to public health facility 3. Sometimes care seeking is delayed even for emergency maternal and child complications 4. Private sector utilization is higher 5. Lack of faith in public health system and some level of mistrust with private sector 6. High safety and security concerns faced in seeking care after dusk, as in emergency situations, particularly in the peripheries of upper Sindh

4.9 Section Summary

Service utilization is low across the continuum of MNCH services with particularly low utilization of maternal care services and is due to a low utilization of MNCH services by community is due to a combination of community level factors, low awareness and inability to pay as well supply side factors.

Community Level Factors

- Demand for prenatal and postnatal care is particularly low and is due to lack of sufficient awareness amongst the majority of clients while cultural resistance to use of service is confined to only pockets of population.
- Inability to pay is a major barrier to utilization of health care services. Increasing poverty level and high level of transportation and direct medical expense results in poor community willingness to utilize health care facilities except in the case of acute illness and maternal complication.

Supply Side Factors

- Poor access to functional health services is a major constraint behind low utilization. Access is poor for both government and private services but particularly for government services, and leads to frequent bypassing of FLCF tier.
- Better uptake of ANC is seen in covered villages and is due to demand inducement by LHWs.
- There is a general mistrust of the government system and major hindrances indentified by clients include lack of female staff, limited opening timings, insufficient medication and lack of supportive diagnostic and emergency services.

- Client prefers private sector utilization over government sector despite heavy charges, however, this result in debts and depletion of savings, and greatly reduces access for the poorest groups.
- Preventive outreach services such as childhood vaccination and contraceptive provision by respective EPI and LHW program are favorably received due to provision of free of cost services at the doorstep, however there is poor coverage of these programs in the more remote villages.

Recommended Measures

- Client incentives linked to health services are needed but must be simultaneously accompanied by improvement in health care services. Incentives are particularly needed to target antenatal care, delivery, post natal care and well baby checkups.
- Vouchers for transportation are needed to offset heavy cost of transport for deliveries and Emergency Obstetric and Neonatal Care.
- Enhanced health education at village level through LHW program and alternatively through NGOs in areas uncovered by LHWs is needed to target importance of maternal care and newborn services, recognition of danger signs by mothers, and information to clients on where to obtain services.

Section 5. HEALTH CARE DELIVERY SYSTEM

5.0 Introduction

The previous section outlined demand side factors affecting service utilization. Section 5 reviews the government health sector and the private health market in NPPI districts identifying key supply side areas where result based financing mechanisms need to be placed as well as listing supplementary measures needed to make them work.

5.1 Methods

A triangulation of both secondary and primary data was done to identify supply side constraints and come up with suggestions. Secondary data analysis involved use of government records and independent studies to assess the availability of key health inputs such as health infrastructure, staffing and funds; use of government HMIS and vertical program records to review health service performance, and use of NPPI baseline survey data to review quality of care at health facilities. Primary data analysis drew on qualitative insights provided by interviews of provincial and district managers, government health facility staff and key informants from private sector on factors behind low MNCH service output in the health care delivery system and measures needed for improvement.

I. GOVERNMENT HEALTH SECTOR

5.2 Infrastructure Availability: Availability of Government Beds and FLCFs is Below National Statistics Requiring Public Private Partnerships for Quick Roll out of Service Coverage and Reduction in Service Overlaps.

An overview of the government health system shows that hospital bed to population ratio in NPPI districts is far below the national average indicating poor preparedness for maternal and child emergency services (Table 5.2). The exception is Larkana district where the ratio of 78 beds to 100,000 population exceeds national average of 65 beds per 100,000 population and is mainly due to the presence of a teaching hospital. Other districts have extremely low bed strength as seen by a mean of 23 beds/ 100000, population with a lower range of 5 beds per 100,000 to a higher range of 28 beds per 100,000 population. Maternity and pediatric beds would be expected to be substantially lower across all districts and absent in some. Availability of infrastructure at the health facility level is similarly low with an average of 3 health facilities per 100,000 population in NPPI districts as compared to the national average of 10 FLCF per 100,000 population.

Inter-district variations show that Larkana comparatively is relatively ahead of other NPPI districts in terms of government tertiary infrastructure however it is difficult to ascertain whether there is sufficiency of MNCH beds. Other districts need further availability of both hospital as well as first level care facilities with Tharparkar, Nawabshah and Ghotki seen to have the lowest infrastructure availability.

Table 5.1 Infrastructure Availability: Government Health System

District Ranking	Districts	Hospitals[1]	Beds/100,000 population[2]	FLCFs[1]	FLCF/ 100,000 population[1]
	Tharparkar	3	5	33	2
	Nawabshah	2	10	44	3
Low	Ghotki	4	NA	33	4
	Jamshoro	2	38	25	2
	Qambar	4	78	29	2
	Umarkot	1	13	16	1
	Kashmore	1	13	20	2
Medium	Badin	5	17	49	3
	Shikarpur	5	28	41	3
High	Larkana	9	78	59	4
	NPPI districts	5	23	43	3
	Pakistan	417	65	5289	10

Sources: [1] National HMIS (2006); [2] SPDC (1996)

Low infrastructure to population ratio when combined with low population density in NPPI districts further decreases access to health care facilities. Investment in new infrastructure involves substantial capital costs and has been associated with long delays. Quick and efficient measures for increasing health facility access involve use of available private sector outlets and provision of incentive to private sector for expansion in uncovered areas and are also expected to result in efficiency gains through avoidance of service overlaps.

5.3 Availability of Skilled Staff: Strength of Specialists & Female Health Staff Will Remain Sub-Optimal Even if Sanctioned Posts are Filled

Existing health staff strength in NPPI districts indicates extremely low capacity to provide emergency services and at best patchy strength for routine services. Specialists are either absent or available in extremely low numbers with a total of only 3 gynecologists and 2 pediatricians across NPPI districts translating to an average of 1 specialist per district and a ratio of 0.05 specialists to 100,000 population (Table 5.3). Staff vacancies are the main reason behind shortage of gynecologist's shortage of pediatricians results from a combination of insufficient number of posts as well as staff vacancies (Table 5.4). Extremely low strength of specialists raises serious concerns of public sector ability to provide comprehensive maternal and neonatal emergency care.

Amongst the general cadre, female doctors and female paramedics are in particularly short supply as compared to male doctors and male paramedics. Presently there is 1 female doctor to 100,000 population and an average of 7 female doctors per district. This would increase to 20 female doctors per district if vacancies are filled but still would be able to cover less than half of existing government health facilities. Female paramedics are also in short supply with 1 per 100,000 population and an average of 13 per district. Improvement in ratio of female paramedics to doctors is also needed which is currently inverse (1female paramedic: 4 doctors) and requires rapid expansion in number of LHVs and nurses. Actual staff strength on ground of all staff is lower than presented as mentioned figures do not take into account the actual number of staff reporting to work and given the high level of reported absenteeism there is expected to be further dilution of staff strength.

Table 5.2. Availability of Skilled Staff

Districts Ranking	Districts	Specialist[1]		Female Doctors[1]		Male Doctors[1]		Female Paramedics[1]	
		No.	per 100,000 pop	No.	per 100,000 pop	No.	per 100,000 pop	No.	per 100,000 pop
Low	Kashmore	2	0.2	3	0.3	48	5	10	1
	Qambar	0	0	6	0.4	42	3	2	0.1
	Umarkot	0	0	2	0.1	23	2	15	1
	Larkana	0	0	3	0.2	58	4	9	0.6
	Tharparkar	-	-	-	-	-	-	-	-
Medium	Ghotki	1	0.1	1	0.1	25	3	11	1
	Nawabshah	0	0	8	1	35	2	6	1
	Shikarpur	0	0	13	1	51	4	19	2
High	Jamshoro	1	0.1	16	2	59	6	25	2
	Badin	1	0.1	22	2	91	6	21	2
	NPPI districts	1	0.05	8	1	48	4	13	1

Source: [1]Government Record (2008)

Staff vacancies are particularly high for female in comparison to male staff indicating that supportive measures to draw in female staff need to be particularly addressed. Inter-district variations show better specialists and female health staff availability in the lower Sindh districts of Badin and Jamshoro, followed by Nawabshah as compared to districts in upper Sindh and Tharparkar region and are probably due to poor security conditions in upper Sindh and extremely remote locations in the Tharparkar district.

Table 5.3: Sanctioned and Working* Staff Positions

District Ranking	Districts	Specialists [1]		Female Medical Officers[1]		Male Medical Officers[1]		Female Paramedics[1]	
		Sanctioned	Working	Sanctioned	Working	Sanctioned	Working	Sanctioned	Working
Low	Larkana	3	0	19	3	55	58	45	9
	Qambar	3	0	13	6	40	42	20	2
	Umarkot	4	0	27	2	90	23	49	15
Medium	Kashmore	4	2	12	3	54	48	34	10
	Ghotki	6	1	28	1	66	25	27	11
High	Jamshoro	4	1	30	16	76	59	51	25
	Badin	3	1	34	22	92	91	38	21
	Shikarpur	2	0	33	13	75	51	29	19
	Nawabshah	2	0	24	8	57	35	14	10

Source: [1] Government Record (2008)

*** working:** staff positions which are filled and detailed

Filling of staff vacancies will be extremely difficult to tackle unless underlying reasons behind unwillingness to serve in the government sector are addressed (See Section 5.7).

However, although staff strength will improve after filling of vacancies it will remain sub-optimal and requires supplementation through private practitioners. A considerable expansion is needed in the female paramedic cadre and will require local production of LHVs at the district level in addition to drawing in LHVs based in the private sector.

Way forward requires a two-fold strategy of filling of vacant posts through use of provider incentives backed by strong policy emphasis on staff retention as well as supplementation of government staff with use of private practitioners. Other measures include the provision of specialist skills to general cadre in the more remote districts where availability of highly skilled staff will continue to be a problem, and addressing the inverse doctor LHVs ratios by increasing local production of LHVs.

5.4 Service Performance: MCH Service Indicators Have Remained Stagnant and are Below National Figures for Government Facilities

Performance of MCH services, with the exception of EPI is other than the national average and there has been little improvement over the last three years and (Figure 5.2 & 5.3). Health facility utilization for MNCH services is particularly low as compared to vertical outreach services. Only 9.2% of pregnant mothers are registered for antenatal care at government facilities while service figures further drop as pregnancy progresses with only 3.6% of pregnant women delivering at health facilities and 1.2% of delivered women provided with post natal care (Table 5.4A).

Table 5.4 (A). Maternal Outputs in Public Sector

Districts	% ANC Registered[1]	% Deliveries by Trained Staff [1]	% Post Natal care out of expected deliveries in previous month[1]	% Women Received at least 2 doses of TT[1]
Badin	17	6	3	26
Umarkot	0	0	NA	20
Shikarpur	29	11	3	26
Ghotki	8	4	1	25
Jamshoro	0	0	NA	44
Tharparkar	7	2	1	18
Larkana	5	1	3	33
Qambar	0	0	NA	52
Kashmore	NA	NA	NA	NA
Nawabshah	16	8	1	31
NPPI districts	9	4	1	32

Source: [1] Government Records (2007)

Facility based child care services show relatively better rates of curative as compared to preventive care with an average health facility output of 141 child illness cases treated per month while an average of only 9 children <5 years of age are monthly monitored for growth (Table 5.4 B). Evidence on maternal care shows that the FLCF tier is poorly utilized even for routine services such as antenatal care and delivery with comparatively much higher utilization of government hospitals (NPPI Baseline Study 2009). Similar data on child illness is not available however qualitative evidence reports frequent bypassing of first level tier. Skewed utilization involving high dependence on hospital tier results in poorer access and involves higher per capita cost of service.

Outreach services such as EPI are much better than facility indicators however there is considerable inter-district variation in terms of level of EPI coverage. Overall up to 77% of children are immunized up to measles however coverage of pregnant women is much lower with only 32% of pregnant women having received two dosages of TT (Tables 5.4 A&B).

Table 5.4 (B). Child Health Outputs in Public Sector

Districts	<1yrs children monitored for Growth / health facility per month [1]	Child Illness cases/ Health facility per month[1]	% child Fully Immunized upto Measles[1]
Badin	10	148	86
Umarkot	8	75	90
Shikarpur	11	212	73
Ghotki	2	149	65
Jamshoro	7	108	65
Tharparkar	2	103	64
Larkana	1	86	74
Qambar	7	102	110
Kashmore	NA	NA	NA
Nawabshah	7	271	91
NPPI Districts	6	142	77

Source: [1] Government Records (2007)

Figure 5.1. Health Facility Utilization for Maternal Health

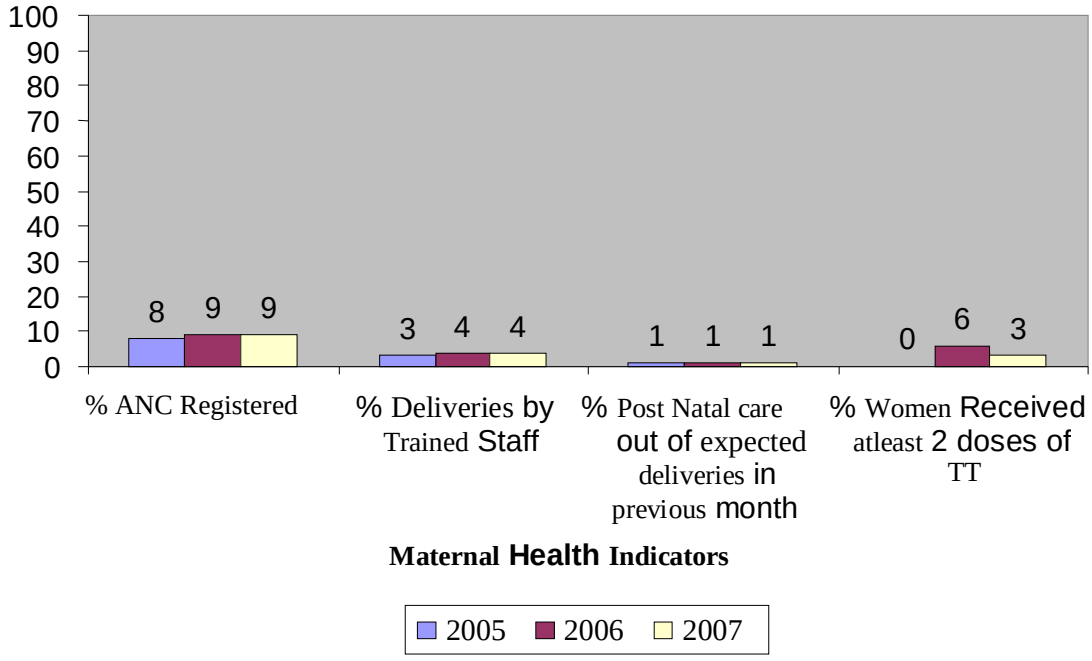
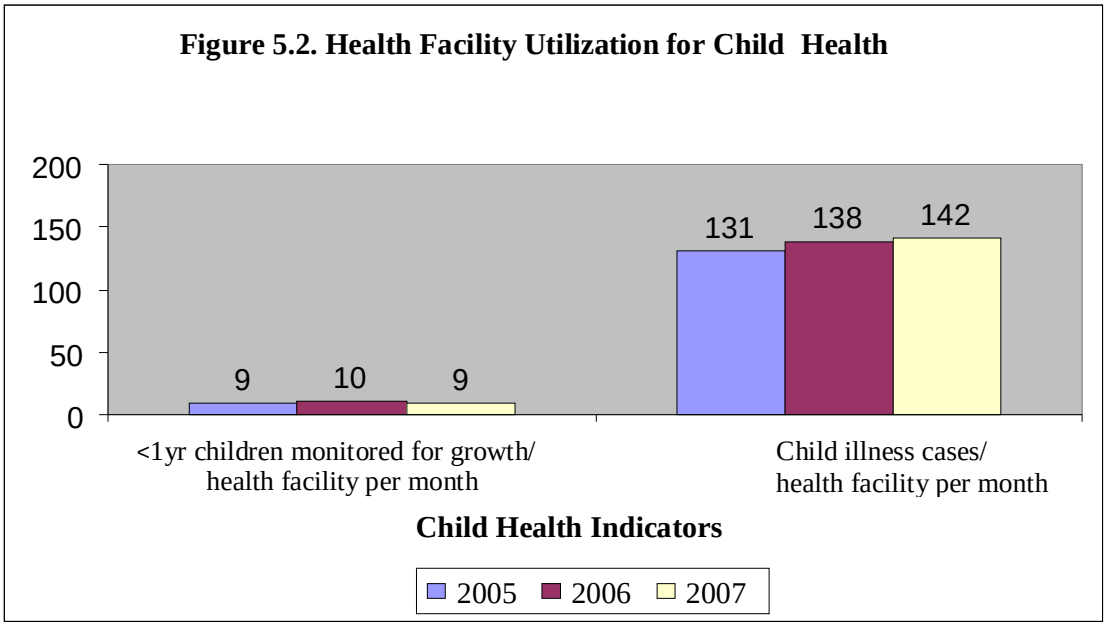


Figure 5.2. Health Facility Utilization for Child Health



Health facility based MNCH services need a considerable boost in all NPPI districts while outreach EPI services need improvement in some of the districts. Maternal care particularly needs strengthening in all areas including pregnancy care, delivery, post natal care and family planning. Skewed utilization of health system involving needs to be addressed to improve cost efficiency and access with FLCF tier made operational for dealing with routine case and filtering of cases to hospital level.

5.5 LHW Program: Coverage Extension, Health Facility Linkage and Stringent Monitoring Required to Enhance Potential

LHWs have a key role in increasing uptake of MNCH services through creation of client demand and referral of cases to health facilities. LHW covered areas show higher client demand for ANC, family planning and immunization over uncovered areas as discussed in Section 4.6. However presence of substantial uncovered areas and relatively weak program monitoring in NPPI districts limits further effectiveness of the LHW program.

LHW coverage in NPPI districts is limited to less than half of the population (Table 5.5) and falls even lower to a third of the population in districts such as Umarkot and Jamshoro. LHW to population ratio in NPPI districts is 5 per 10,000 populations, lower than both the required number of 10 per 10000 population and national average of 7 per 10000 population. As a result only 54% of newborns are registered and weighed, merely a third of pregnant women are visited by LHWs for ANC while use of modern contraception is confined to 28% of eligible clients. Ghotki and Nawabshah are relatively better performing than other districts with approximately two thirds of the population covered by LHWs and service coverage falling within a higher range.

Knowledge of key health messages amongst is comparatively poorer in Sindh as compared to national average, as indicated by a recently conducted LHW evaluation survey (LHW Evaluation 2007), with the situation likely to be worse in NPPI districts. Knowledge is particularly poor for antenatal care, diarrhea and ARI management and comparatively better

for anemia, contraception and breastfeeding. Furthermore, supervision, monitoring and linkage with health facility in Sindh also fall behind national level. Only 43% of LHWs in Sindh regularly attend monthly meetings, LHW supervisor visits the community in only 30% of visits, only 56% of LHS use supervisory checklist and feedback is provided in only two-thirds of cases. Facility linkage is also weak due to severe shortage of back-up female staff at BHUs and RHCs for building necessary referral and monitoring linkages while in addition coordination linkages also need to be developed between the LHW Program managed by the EDO-Health Office and the newly introduced PPHI at BHUs.

Table 5.5. LHW Coverage & Service Performance

Districts	% Covered Population[1]	% of newborn registered and weighed[1]	% of pregnant women visited for ANC[1]	% CPR[1]	% of clients using MC[1]
Badin	60	59	41	16	28
Umarkot	34	69	45	16	31
Shikarpur	51	77	43	18	37
Ghotki	70	43	35	14	23
Jamshoro	32	64	45	17	29
Tharparkar	32	40	19	12	15
Larkana	55	50	29	17	30
Qambar	55	56	27	15	26
Kashmore	45	22	68	15	23
Nawabshah	62	63	37	19	35
NPPI Districts	47	54	39	16	28

Source: [1]Government Records (2007)

More effective role of LHW program is needed for increasing client demand and requires i)expansion of LHW coverage, ii)tightening of supervisory control, iii)targeted improvement in LHW knowledge and skills for risk assessment and referral, and iv)stronger linkage with health facility. Coverage expansion should be in a phased manner involving short and long term strategies such as introduction of a career pathway for upward movement of LHWs, relaxing eligibility rules for more remote areas and incentivized school education linked to job provision.

5.6 Quality of Care at Public Sector Facilities: Attention needed to Out-fitting of Facilities, Supplies Availability and Friendlier Staff Attitudes

Quantitative Insights: Quality of care at secondary health care facilities in rural Sindh is poor and requires substantial improvement. NPPI baselines survey of THQs and DHQs showed that majority of them lack 24 hours supply of electricity. EmONC services round the clock needs upgrading in terms of medicines and supplies such as magnesium sulphate, antibiotics and IV fluids, clearly shown as in Table 5.6 (A). Emergency medicines and CPR availability for maternal at both the levels are deficient and need attention. Similar lack of equipment and supplies is seen in child and neonatal care services such as presence of heater, incubator, nebulizer, and ambo bag.

Table 5.6 (A) Quality of Care in DHQ and THQ

		DHQ	THQ
Infrastructure	Provision of Running Water	100%	80%
	Availability of 24 hours electricity	20%	12%
	Availability of telephone facility (landline)	100%	100%
	Presence of Delivery Room	80%	88%
	Presence of Operation Theater	100%	80%
Maternal Care	Availability of blood transfusion facility	80%	52%
	Availability of Magnesium Sulphate	0%	4%
	Availability of antibiotics	64%	48%
	Provision of Family Planning supplies	60%	43%
	Availability of 24 hours IV fluids	93%	49%
	Availability of 24 hours CPR facility	13%	8%
Child/ Neonatal care	Presence of Incubators	20%	0%
	Presence of Phototherapy	20%	0%
	Presence of Heater	20%	0%
	Availability of Ambo bag	20%	20%
	Presence of Nebulizer	60%	40%
	Availability of 24hours neonatal services	100%	32%

Source: Baseline NPPI Survey (2009)

The results of the recent NPPI baseline survey of FLCFs for Quality of care in rural Sindh exhibited that majority of BHUs and approximately one third of RHCs require major inputs in terms of the availability of the delivery rooms, oxygen cylinder and functional toilets for patients. Laboratory for base line investigations is deficient at BHU level. 76% of the safe delivery kit and essential emergency care supplies such as availability of antibiotics is missing in most BHUs. Availability of essential emergency services such as CPR for mother and newborn is also particularly poor particularly at BHU level.

Table 5.6 (B) Quality of Care in RHC and BHU

		RHC	BHU
Infrastructure	Provision of Tap Water	75%	51%
	Availability of electricity supply through main connection	98%	84%
	Availability of functional Toilets for patients	57%	25%
	Presence of Delivery Room	62%	20%
	Presence of Minor OT	43%	-
	Presence of Oxygen Cylinder	60%	12%
	Presence of basic laboratory	50%	6%
Maternal care	Availability of CPR for women during working hours	24%	15%
	Presence of safe delivery kit	50%	24%
	Availability of IV fluids administration to women	90%	
	Availability of antibiotics	29%	
	Provision of Family Planning supplies	57%	46%
Child / Neonatal care	Availability of ORS	79%	
	Availability of IV fluids administration to infants and children< 5	59%	
	Availability of CPR for neonates during working hours	21%	13%
	Presence of Nebulizer	14%	-

Source: Baseline NPPI Survey (2009)

Qualitative insights: Qualitative data from both service provider and client group discussions in NPPI districts reinforces poorly functional health services. Services timings are limited to morning hours while range of services provided is narrow with almost no provision for deliveries, acute child illness and MNCH complications at FLCF facilities and low availability in government hospitals. Most FLCFs were reported to lack basic equipment and supportive diagnostic services. Medicine for acute illness, dietary supplements for pregnant mothers and supplies for delivery and emergency services are present in insufficient quantity leading to purchase from private pharmacies and high cost of care for patients. Staff attitudes were also reported to be poor as compared to friendlier attitudes in private sector facilities.

5.7 Competing Workload and Poor Clinical Skills Hamper Quality of Care

Health facility staff reported low emphasis on MNCH from district supervisors resulting in overlooking of MCH in favor of general curative services. 'We don't do because we are never asked' was a frequent rejoinder with service accountability checks by managerial staff limited to OPD and staff attendance registers. Additionally, heavy time consumption of staff in polio eradication activities was felt to affect all services particularly low priority ones such as MNCH. Moreover, most staff felt that their existing clinical were for appropriate screening, case management and referral for MNCH. Many of these areas were felt to be inadequately addressed during medical training and as there is no system of on job refresher trainings most health staff rely on pharmaceutical representatives for updating of knowledge.

Provider training in overlooked areas such as IMCI, newborn care and maternal complications, supervisory emphasis on MNCH, and ring-fencing of service provision time from polio and other vertical activities are measures needed in addition to outfitting and stocking of health care facilities.

5.8 Factors Underlying Low Female Staff Retention: Filling of Vacancies Will Be Ineffective Unless Backed Up With Provider Incentives and Supportive Security Measures

Low strength of female staff is due to two distinct issues: i) a ban on staff appointments; and ii) unwillingness of available appointed staff to service in NPPI districts. A ban on public service commission appointments above grade 11 has been in place since 2001 resulting in prolonged staff vacancies of both doctors as well as paramedic staff. Some recruitment has been done over the years through different projects however these are non-regular project based posts. The ban on appointments has recently been lifted however staff selection and appointments is a centralized process handled at the provincial level and vulnerable to political pressures. This results in delays and often leads to hiring of staff that are unwilling to serve in appointed districts.

However even if staff is speedily appointed against vacant posts there is likely to be low retention at place of posting due to a number of inter-related issues. Safety and security due to general poor law and order situation is the foremost issue amongst female staff in Kambar, Kashmore, Shikarpur and Ghotki districts. In other districts the remote and underdeveloped locations of health facilities is the main barrier. Issues with such postings include high private transport charges due to lack of public transport and are ill afforded by existing salaries. Additionally, lack of livelihood for spouse and education facilities for children, non-functional and poorly repaired staff residences, and general isolation make these postings unattractive for staff and their families. Above all, risk of harassment of female staff

remained even in better security areas from area influentials, government superiors and accompanying male relatives of patients and was attributed to entrenched cultural attitudes on 'easy' sexual availability of women. Lack of chowkidar and absence of other female staff such as ayah, midwife or other paramedic after regular opening time particularly expose staff to harassment risks.

Existing compensation is considered to be well below the market and the practice of uniform salaries across government sector with failure to build in hardship and transport allowance further reduces willingness to serve in peripheral postings. The notion of incentivized salaries are well received by all both administrative and general cadre (See Section 8 for further details) and have drawn female staff into the PPHI as well as provided inducement to non-earning male family members (e.g. father, father- in-law, younger brother) into accompanying female staff. However, even with incentivized salaries most staff preferred daily outbreak over 24 hour postings at peripheral facilities

Staff appointments will not be sufficient in addressing shortage of female staff and requires both sufficient level of provider incentives as well as supportive security measures such as pairing of female staff for non-regular duty hours, provision of male chowkidar, adequate night stay facility, and strong political emphasis on all local stakeholders for protection of female health staff.

5.9 Planning Related Challenges

5.9.1 Low MNCH Priority at District Level & Lack of Provincial Oversight Post-Devolution

Low priority to MNCH is seen across NPPI districts in comparison to competing curative care agendas. Extent of priority given to MNCH at district level rests mainly with district level stakeholders. Fiscally, the districts receive a one line budget allocated from Provincial Finance Commission and district health budgets are subsequently decided within the district involving the EDO-Health, District Government and approved by District Legislature. Administratively, the devolved EDO-Health Offices report directly to the Provincial Health Secretariat instead of the Health Directorate, which houses provincial preventive and promotive programs, and was previously the reporting tier for district health systems. Lack of administrative authority of Health Directorate over district health systems results in poor linking with provincial MNCH goals while shortage of provincial monitoring funds limits provision of technical support and advice to districts. Furthermore, international donor agencies promoting MCH programs have mostly continued to interact with provincial government and as yet have had little engagement with district governments despite the devolved set-up.

Loss of provincial and donor oversight post devolution has contributed to low district level emphasis on MNCH and requires sensitization of districts stakeholders and district performance review exercises both internally within the district as well as at the provincial level. The monitoring role of the Health Directorate also needs to be strengthened through provision of earmarked funds for monitoring and inclusion in oversight bodies for district based projects.

5.9.2 District Based Needs Assessment and Planning Need Institutionalization

District based needs assessment and planning is not an established practice in any of the NPPI districts and is unlikely to be followed in other districts in Sindh. Annual planning and budget making process is limited to inflation adjusted changes made to the operational budget. New targets and initiatives when introduced are top down and introduced by vertical programs raising questions on the functionality and responsiveness of health service devolution. Similarly, planning for development budget does not involve a needs assessment exercise, is traditionally confined to use of budget for capital works as opposed to flexible use of development budget for enhanced monitoring or providing training and results in incremental infrastructure addition to the existing health care delivery system. Responsive strategies for MNCH and maximizing potential of devolved powers can only be made if needs assessment and planning is established as an institutionalized exercise and linked with the budgeting process.

Periodic, three or five yearly, district level needs assessments are required followed by development of annual heath sector plans linking operational budget and ADP development process with targets of annual district health plans. District needs assessment exercise should be conducted by EDO-Health, PPHI, DPWO, district government and other relevant stakeholders including private sector with assistance provided by provincial and UN agencies and endorsed by district assembly while annual planning exercise need to be regularized and linked to the budget making and approval process.

5.9.3 Under-budgeting for MNCH: Low Spending, Lack of Budgetary Growth and Increasing Squeeze on Non-Salary Items

Overall per capita funding is low and inclusive of district operational budget and vertical program budgets amounts to Rs. 275 (USD 3.4) / person/year. The figure is higher than the estimate of Rs 210 provided by the World Bank analysis of 2004/05 however after adjustment for inflation there actually seems to be a regression in public sector expenditure at the district level. Exact figure for MNCH expenditure is not available due to lack of budgetary break-up by service outputs but given the low emphasis on MNCH services across NPPI districts it is expected to be low. District level allocation to health ranges between 13-16% of district budget and the share appears to remain stagnant with adjustments confined to yearly inflation adjustments across the entire district budget. Provincial after recent increase is at 4.6% of total budget and spending post-devolution has steadily declined.

While per capita spending levels are low and there appears to have been little significant increase in budget over the years, the share allotted to non-salary items is extremely small. 86% of the EDO Health budget comprises of salaries with little left over for supplies, maintenance and monitoring and has serious implications on quality of care. Staff salaries have grown at a higher scale than inflationary adjustments to the budget thus indicative of a steady erosion of the non-salary component. (See Section 7).

On the development side, there has also been a reduction in funds however available budget is traditionally utilized for capital works such as facility construction schemes which in turn have increased and lasting recurrent cost implications. More innovative and cost-effective utilization of development funds is needed as in purchasing of private sector services in lieu of facility construction diversion to staff training and enhanced monitoring of MNCH services.

Overall spending is low, is suggestive of little budgetary growth over the years, and there is poor earmarking of non-salary budget. Policy measures include increasing health allocations by increasing budgetary share at district level and reversing the decline at provincial level; tracking of funds for MNCH through move to output based budgets; and significant increase and ring-fencing of non-salary funds. Furthermore development funds should by flexibly used towards soft projects such as monitoring, training and public-private partnership schemes to avoid increased cost implications of further facility construction.

5.9.4 Shift to Stewardship Role needed and Requires Sensitization, Capacity building and Ear-marked Budget

The planning and strategizing function is fundamentally the government's responsibility and should provide a strategic direction for the entire health sector. However, focus of the government health sector remains traditionally confined to implementation of directly provided services and planning exercises even when conducted are limited to the public health service delivery system. Lack of a strategic planning role encompassing the entire health sector has resulted in ignoring the parallel working of the private sector which is a significant provider of MNCH services. This has resulted in missed opportunities causing service overlaps and resource duplication in certain areas, lack of tapping into private health care and diagnostic services in areas having patchy government services, and generally poor regulation of private sector services.

Government at present lacks orientation and skills for its stewardship role and requires focal capacity development of district health managers and strengthening of EDO-Health offices and DHDCs. Better availability of data and improved field based monitoring are also needed and require increase in monitoring budget which at present is minimal due to heavy budgetary commitment to staff salaries. Moreover, suspicion of private sector and turf politics over service provision leads to low willingness for strategic partnerships (See Section 8) and requires sensitization of both district and provincial managers on the role of a 'strategic centre'.

District sector wise plans need to be developed to map and harness the potential of the private sector identifying areas for strategic use of private sector for district MNCH targets, and need to be accompanied by capacity building for stewardship role of government and ear-marking funds for monitoring and regulation.

5.10 Administrative Challenges

5.10.1 Weak Administrative Control Over Staffing

Centralized staff management powers and frequent political interference therefore substantially weakens administrative control of district health managers over staff postings and retention. Administrative control for grade 16 and below, which involves nursing and paramedic staff, lies with district health managers while powers for grade 17 and above, involving the doctor and specialists cadre, continue to be concentrated at the provincial level. Political interference for staff appointment and transfers is seen at both districts and province thereby diluting EDO authority over paramedic staff while leaving negligible control over doctors. As a result staff easily obtain transfers from peripheral facilities to urban locations and are assisted by collusions at various levels over obtaining a 'visa' for exiting posted

facilities while others retain designated posts but maintain a nominal attendance while setting up their independent private practices. This is in contrast to the PPHI which has full administrative control over staff of contracted BHUs in terms of appointments, postings and salary packages. The 'special status' of PPHI also limits political interference from influentials.

Class I powers on trial basis in NPPI districts, as already done for PPHI, are needed accompanied by policy emphasis on reduction of political interference for staff postings.

5.10.2 Fragmented Health Care System Hinders Implementation of Integrated Services

Existing health system is fragmented into four distinct tiers managed by different stakeholders hence complicating the implementation of integrated services required by the MNCH context. The different tiers include: the i) the tertiary tier involving the DHQ Hospital / Teaching Hospital and managed by the Medical Superintendent; ii) the secondary care tier of Taluka Hospitals and Rural Health Care centers managed by the EDO-Health; iii) the primary care tier involving the BHUs managed by the PPHI; and iv) the outreach community services implemented by the vertical programs. Each tier has its own budget, accompanying administrative powers and parallel monitoring systems (See Sections 6&7). However at present there is lack of coordination across the different tiers in terms of planning and monitoring of MNCH services, effort has not been made to develop referral linkages, and link between the vertical community based programs and the BHUs has weakened since implementation of the PPHI.

Provision of effective integrated services will require i) reduction in compartmentalized tiers with BHUs and community outreach services to be managed by a single agency; and ii) tangible coordination across the different tiers in planning, implementation and monitoring of MNCH services under the umbrella of a coordinated district health plan.

5.10.3 Lack of Output Based Systems

Government has low capacity and lacks precedence for output based financing and monitoring systems. Financial systems are input based, follow the general public sector financial rules of business and there is no system for linking with service output data. Staff managing financial data have inadequate training for moving to new output based systems while health managers coming from medical backgrounds have received little training in budgeting, costing and forecasting and typically make little use of financial data in programming health services. The Health Management Information System (HMIS), designed with USAID support in mid 1990s, is more sophisticated than the financial information system and provides computerized service outputs at the district level however there has been no updating of civil service rules to link service outputs with staff performance. Career progression continues to be based on number of years of service and there is no system of performance appraisal or cash rewards. Moreover, there is poor use of available information due to lack of work culture and skills, and quality of information is often suspect due to false recording of data. Move towards output based systems would require introduction of new financial systems and their linkage service output data. (See Sections 6 & 7).

Shift to output based systems in government health department will require larger civil service reforms. Result based funding mechanisms in NPPI districts will have to rely on an

outside agency having necessary capacity for output tracking and its linkage with financial data.

5.10.4 Monitoring Frequency and Quality Needs Improvement

Monitoring frequency and quality is considerably lower than required and makes little use of available MNCH performance indicators. Monitoring typically involves conduction of occasional health facility visits by district health managers with emphasis on staff attendance and OPD while MNCH services usually receive negligible attention due to low priority as well as lack of technical skills of supervisors in the MNCH area. Numbers of visits vary across districts and as such there is no system of required number of monitoring visits. Visits to community level are rare and hence there is little cross-verification of health facility records. There is little practice of use of information for monitoring despite compilation of service output data through the computerized Health Management Information System. HMIS data is largely maintained for forward routing of data to provincial and national tiers. Moreover, only the health service database out of the 4 HMIS databases is maintained and updated, while health facility, health personnel and training databases are not in use despite being potentially vital sources of information.

Monitoring at the provincial level is mainly desk based and is also poorly tied to service outputs except for vertical programs such as the EPI, World Food Program and Population Welfare. The presence of multiple parallel monitoring systems creates difficulty in reconciling information for evidence based monitoring while absence of linkage between service outputs and service recognition leads to indifference for use of information. (See Section 6)

Strengthening of monitoring will require linking of service outputs with salary bonuses or in performance appraisal, earmarking funds for district HMIS and greater number of field visits, and capacity building to improve quality of supervision.

5.10.5 Managerial Capacity Building Needs to be Institutionalized

District heath managers and their associated staff are in need of orientation and skills for health systems management as well as for MNCH specific needs. Existing focus of managerial staff is on day to day routine administration and curative care services. While similar capacity constraints have been raised by past donor funded projects such as Family Health Project-1 and TAMA, capacity building remains an un-institutionalized process. At present there is no ‘grooming’ system for government health managers as found in the civil service cadre which builds capacity at the time of intake into government service or later during the pathway of career progression. Capacity building even when undertaken with donor support is limited to one-off training workshops the effects of which get dissipated due to poor absorptive capacity of existing public administration system as well transfer of trained staff.

Capacity building in health systems management is required but needs to be accompanied with measures for increased uptake of capacity building training. Mandatory training for administrative cadre linked to service entry and career progression, retention of trained managerial staff at place of posting for at least a three year period, and provision of greater administrative control can improve linkage training and application linkage . Key areas for formal skill development are district health planning, stewardship and purchasing skills,

output based budgeting, and improved monitoring and need to be accompanied by focal trainings on MNCH needs assessment, programming and monitoring.

II. THE PRIVATE SECTOR MARKET

5.11 Private Sector is the Major Provider for Maternal Care and Child illness

Quantitative Insights: While overall use of MNCH services is low across NPPI districts, the private sector is the preferred provider over government for most services except public goods such as EPI and family planning. A review of secondary data shows that 655 of antenatal check-ups and 43% of all deliveries are conducted by skilled staff and of these the majorities are conducted by private health providers (Table 5.7A). Child illness data similarly shows that private providers are the main recourse for treatment of child illness with 60% of case treated by private sector as opposed to 19% at government FLCF or hospital. However public sector dominates in the provision of public goods and is the main provider of family planning services (Table 5.7A) as seen from NPPI baseline survey and in immunization to children and pregnant women as indicated by provincial estimates of PSLM (PSLM 2006).

Qualitative insights: Qualitative evidence from NPPI sites shows that the private sector remains the major recourse even for the poor with expenses met through use of available savings and/or borrowing from relatives and money lenders. Institutional deliveries amongst the poor are extremely rare and occur usually in the case of life threatening complications. Similarly, postnatal visits even to private provider are extremely infrequent and occur in case of complications following delivery. Private sector is the main and preferred provider for child illnesses including newborn complications, diarrhea and pneumonia in under five children despite higher costs. However public sector dominates in terms of preventive services with free services and easy access at the doorstep being the main reasons behind client uptake of government provided EPI services and LHW provided contraceptives. (See Section 4 for details).

Table 5.7 (A). Utilization of Maternal Health Services by Type of Provider

Districts	Deliveries [1]			Antenatal Care [1]				Family planning [1]		
	% Skilled				% Skilled					
	Govt Hospital / Clinic	Private Hospital / Clinic	% Unskilled	Home	Govt Hospital / Clinic	Private Hospital / Clinic	% Unskilled	% Public sector	% Private sector	% Other sources *
Badin	10	38	52	1	14	61	24	67	30	3
Umarkot	7	31	61	3	3	42	32	76	21	3
Shikarpur	6	42	52	2	27	61	32	61	38	1
Ghotki	2	37	54	5	6	64	35	27	52	21
Jamshoro	14	39	47	1	37	47	28	63	25	12
Tharparkar	2	16	82	8	17	9	51	80	18	2
Larkana	4	44	48	4	15	53	36	47	35	18
Qambar	5	41	54	4	10	42	27	57	43	0
Kashmore	1	29	71	3	4	49	44	26	61	13
Nawabshah	8	41	51	0	20	47	42	77	13	10
NPPI Districts	6	36	57	3	15	48	35	59	32	9

* other sources include: shop (not pharmacy) / friend / relative / Dai / others

Source: [1] Baseline study for NPPI (2009)

Table 5.7 (B). Utilization of Child Health Services by Type of Provider

Districts	% Govt Hospital / Clinic[1]	% *Private Practitioner[1]
Badin	22	63
Umarkot	NA	NA
Shikarpur	34	55
Ghotki	12	78
Jamshoro	NA	NA
Tharparkar	20	30
Larkana	9	67
Qambar	NA	NA
Kashmore	NA	NA
Nawabshah	15	67
NPPI Districts	19	60

Source: [1] MICS (2003-04)

*Includes allopathic, providers and hakeems

5.12 Overview of Private Sector

Private sector in selected NPPI districts is an active and rapidly growing sector with economic compulsions the key factor behind growing private practice trend. It is mostly dominated by the private-for-profit sector while presence of the non-profit sector is sketchy with minimal involvement in clinical service provision. Although expansive in terms of general curative care, the private sector is as yet small scoped in terms of MNCH providers and service outlets. The exceptions are the two districts of Larkana and Nawabshah which have a higher private sector concentration in the MNCH area as well as in general curative care areas. Across all districts, private sector services are mainly clustered in the urban centers of the districts as compared to the peripheries where services are largely provided by unskilled birth attendants or 'mobile' quacks offering limited curative care.

5.12.1 Private Sector Comprises Mainly of Individual Practitioners While Organized Infrastructure is Less Developed

The private sector mainly comprises of individuals and their outpatient practices while organized infrastructure is weak for provision of emergency and inpatient care. Maternity homes or medical centers providing maternity and neonatal and child care services are either very few or absent and those present are confined to urban centers of the district. Number of registered facilities and beds is generally lower than that in the government sector however figures may be underestimated as registered facilities are lower than reported facilities (Table 5.8). In only two of the districts, Nawabshah and Umarkot, private beds are 2-3 folds higher than government beds. Available maternity outlets in many cases are run by doctors lacking specialty training and thought to provide sub-standard care. Peripheral services comprise of small out-patient clinics for general curative care run by MBBS doctors or quacks and occasional home based set-ups of female providers for conduction of deliveries.

Provider incentives to individual private sector providers can be used to tap into individual private providers for supplementing service provision at government facilities in the areas of both routine and emergency care. Contracting and vouchers of private sector facilities have

limited application due to lack of well developed private sector facilities in most NPPI districts.

5.12.2 Private Sector has Better Strength of Female and Specialist Staff However Female Staff Shortage is a Cross-Cutting Issue Across Public and Private Sectors

Shortage of female and specialist staff is also seen in the private sector however their strength appears to be better than government sector. Specialists where found are clustered in urban areas and are often attached to DHQ or teaching hospitals. Pediatricians are in relatively greater number as compared to gynecologists with estimates of 28 pediatricians present across 4 NPPI districts while gynecologists are estimated to be 21 in number and present in only 2 districts. Female MBBS doctors are in lower supply than male doctors even in the private sector with 6 districts having 10-20 female doctors with remaining 4 districts having a much greater supply (>50). Strength of female paramedics in only 3 districts is 3-5 times higher than that of female doctors while it is lower or at best equal to that of female doctors in remaining districts. The inverse female paramedic to doctor ratio seen in most of NPPI districts may be due to either low supply of LHVs or that they are in government employee and do not maintain distinct private set-ups.

Although private sector has comparatively better staff strength than government sector and can supplement government services, however combined strength of medical staff is still low. Incentivised measures to draw in more medical staff into the districts and as well as focus on increasing local supply of female paramedics for provision of routine care.

5.12.3 Private Sector is Small Scoped after Adjustment of Overlaps with Public Sector

High overlap exists between private and public sector across all categories of health care providers. In 7 of the 10 districts, majority of staff practicing in the private sector are also in government including PPHI employ with estimates varying between 60-90%. Overlaps are lesser in Nawabshah and Larkana districts where there are robust private markets with estimates of 40-50% of practitioners having dual affiliation. Dual affiliation of private practitioners is also lower in Kashmore (estimated to be 25%) although reasons are less clear. Overlaps are principally due to higher earnings while safety and security issues in case of female staff also contribute to setting up of private practice in safer locations. After adjustment for dual affiliation, the private sector, with the exception of 2 districts, is small scoped and can only be used to supplement government services instead of being the primary source for health care delivery.

Purchasing of private sector services should only be limited to those private practitioners who do not have a dual affiliation so as to avoid negative inducement to health staff for strengthening private practices at the cost of public sector facilities. Incentivized salaries can be used for 'pulling in' health staff with dual affiliation into the government sector.

5.12.4 Inter-District Variations: More Well Developed Private Sector Market Present in Larkana and Nawabshah

Amongst NPPI districts, Ghotki, Larkana, Badin, Shikarpur and Nawabshah districts are relatively the most well-developed up in terms of private health infrastructure. They also have comparatively higher concentrations of specialists and female staff as compared to other

Table 5.8 Organizational Scope of Private Sector

District Ranking		Infrastructure Availability			Staff Availability (Qualitative Estimates)
		Beds/ 100,000 pop	Health Care Facilities (Registered)	Health Care Facilities (Qualitative Insights)	
Better ranking districts (emergency facilities, specialists, female docs >100)	Nawabshah	21	Hospitals: 16 MCHC: 0 Curative Clinics: 4	25 notable medical centers: 50% with OT & surgical facilities; 50% with selective support facilities; 12 small scale clinics	20 gynecologists 15 pediatricians 200 female doctors, 250 male doctors *50% staff also in government service*
	Larkana	22	Hospitals: 16 MCHC: 33 Curative Clinics: 350	10% of outlets are medical centers that can cope with MNCH emergencies, 15% can provide limited admissions, 75% are small clinics	Female docs :500 Female paramedics:300 Male doctors: 2000 Male paramedics: 2000 *40% of private staff in all categories is also in government sector*
Middle ranking districts (female doctors >20 and paramedics >50).	Badin	9	Hospitals: 5 MCHC: 3 Curative Clinics: 46	5 hospitals 1 hospital has small neonatal set-up, 6 maternity homes Predominance of small clinics	No gynecologist. 1 pediatrician Female doctors very few 10-15 LHVs *Very few female doctors in government practice except PPHI*
	Ghotki	5	Hospitals: 1 MCHC: 0 Curative Care Clinics: 3	2 MCH Centres funded by corporate sector 5 private maternity outlets with limited admission facilities	1 gynecologist 8 pediatricians, 10 female doctors, 10 LHVs, 130 male doctors, 40 male dispensers *More than two-thirds also in government service*
	Tharparkar	1	Hospitals: 1 MCHC: 0 Curative Clinics: 3	No set up for maternal & neonatal emergencies 3 maternity clinics with limited admission facilities	No specialists 180 male doctors 11 female docs 1 nurse 35 male paramedics *70% of male staff and 90% of female staff also in government practice*

Table 5.8 Organizational Scope of Private Sector (contd)

District Ranking [1]		Infrastructure Availability			Staff Availability [3] (Qualitative Estimates)
		Beds/ 100,000 pop[1]	Health Care Facilities [2] (Registered)	Health Care Facilities [3] (Qualitative Insights)	
Low ranking districts (female doctors <20 and paramedics <50)	Shikarpur	5	Hospitals: 9 MCHC: 2 Curative Clinics: 43	No set up for maternal & neonatal emergencies 35 small scale clinics and few can attend to deliveries	200 male docs 70 female docs 10-12 LHVs/ nurses *70% in government practice also*
	Umarkot	33	Hospitals: 9 MCHC: 1 Curative Clinics: 12	2 medical centres but lack facilities for maternal & neonatal emergencies 100-150 small clinics	No specialist Male medics 150 Male paramedics 100 Female doc 20 Female paramedics 100 *50% of paramedics and 80% of doctors also in government service*
	Jamshoro	6	N/A	2 Medical Centers in Kotri providing limited emergency care, No established set-up for maternal & neonatal emergencies, Mostly small clinics Emergencies taken to Hyderabad	Female doctors: 20, Female paramedics: 50, Male doctors: 100 Male paramedics: 130 *80% of female staff and 60% of male staff also in government practice*
	Kashmore	14	N/A	3 Medical Centres providing limited emergency care No established set up for maternal & neonatal emergencies Mostly small clinics Emergencies taken to other districts	Female doctors: 15 Female paramedics: 25 Male doctors:100 Male paramedics: 150 *20% of female staff and 25% of male staff also work in government sector*
	Kambar	25	N/A	Pediatric emergencies dealt by pediatricians No services for maternal emergencies Mostly small clinics Emergencies taken to other districts	Pediatricians : 4 Female doctors: 10 Female paramedics:10 Male doctors: 10 Male paramedics: 100 *80% of all staff are also in government practice*

Sources: [1] SPDC (1996); [2] World Bank (2005); [3] NPPI key Informant interviews (2009)

districts. In comparison, Tharparkar have a small scoped private sector comprising of approximately 5-6 maternity/medical centers having potential for further development, presence of pediatricians, and a small body of independently practicing female doctors <20 and paramedics <50) Umarkot, Jamshoro and Kashmore mainly comprise of small clinics, lack specialists and have low concentrations of female staff (female doctors <20 and paramedics <50).

Contracting and vouchers of private sector facilities can only be applied in districts such as Larkana, Ghotki, Badin, Shikarpur and Nawabshah that have potentially well developed private facilities while in other districts purchasing of private sector services would rely on provider incentives targeting individual private practitioners for practicing at government facilities.

5.12.5 Private Sector Related Issues: Low Emphasis on Preventive Services, Questionable Standard Setting and Poor Capacity for Book-Keeping & Records

A number of issues are associated with private sector use for MNCH services. Firstly, access to private sector services although better as compared to public sector services is also less than optimal with client complaints of long distances for accessing emergency services resulting in transportation as well as cost issues. Secondly, quality of service is also questionable. At present there is no practice of maintaining a certified list of private providers, collection of evidence on service pricing and regulation of quality of care. Within MCH services the focus of private providers is on profit oriented services such as deliveries, obstetrical procedures and curative consultation while low profit margins and lack of sufficient provider training result in overlooking of promotive and preventive services. Economic compulsions and lack of accountability checks have resulted in growing commercialization with emphasis on user charges and high patient volume often at the expense of quality of care. The practice of quackery is also reported to be on the increase and is particularly prevalent in the peripheral areas and in the poorer populations. Thirdly, standards of financial transparency are also low due to low capacity for book-keeping and record keeping as well as lack of compulsion for declaration of records. Better standards of service provision and record keeping are limited to a handful of larger medical centers in the NPPI districts.

Implementation of public-private partnerships will involve key measures including development of lists of certified providers, clinical training of private providers in MNCH service provision and technical assistance on record keeping of financial and service data.

5.12.6 Private Sector Strengths: Better Availability of Services and Client Friendly Attitudes

Private sector remains the more preferred and frequently utilized provider in terms of deliveries, child illnesses and maternal and neonatal complications. Although most private practitioners also practice in the government sector however there is better availability of staff and round the clock services as reported by clients, making private sector the preferred provider of services. Private sector is also reported to have better equipped facilities in terms of diagnostics, blood bank and other supportive services. Friendlier attitudes and valuing the client as opposed to dismissive attitudes in the public sector is an added reason for its popularity (See Section 4 for details). Underlying reasons for better performance in private set-ups, as reported by private practitioners, are market based compensation, managerial

independence from government bureaucracy, and performance based further growth and recognition.
Availability of health staff and positive attitudes are key factors for comparative success of private sector and require adequate staff compensation accompanied by managerial autonomy and positive recognition.

5.13 Section Summary

Service coverage:

- MNCH service utilization of government health facilities is extremely poor, FLCF tier is particularly underutilized and services have remained stagnant over the last few years.
- Although overall community utilization of MNCH services is low, it is the private sector which is the main provider for child curative care, deliveries and maternal complications despite high charges. Public sector is the main provider of public goods such as EPI and contraception through its outreach programs.
- Service penetration into the more peripheral areas and provision for the lowest income populations is poor by both private and public sector.

Areas for Improved Performances

- Existing numbers of government beds and FLCFs are less than required and need supplementation with private sector services for quick roll out of services as well as attention to transportation issues.
- Staff strength in government sector, particularly of female health staff and specialists, is extremely low and even at full sanctioned strength will remain sub-optimal.
- Significant attention to health facility maintenance, availability of equipment and essential medicines is needed for provision of MNCH services in government facilities.
- Coverage of the LHW program remains low also requires more stringent program monitoring to enhance it demand creating potential.
- Private health sector while having superior staff strength comprises mainly of individual providers rather than well-developed private facilities and has capacity constraints in terms of standard setting, record keeping and low attention to preventive services.

Financing Measures Needed

- Incentives to government staff are required to increase staff strength in government facilities.
- Strategic purchasing of private sector services will still be needed to supplement government services for quick provision of coverage as well as reduction of service overlaps.
- Given the composition of the private sector, the purchasing of private services will need to target individual practitioners through provision of provider incentives for practicing at government facilities. Use of vouchers and contracting will be limited to only few districts which have an adequate presence of private sector health facilities.

Supportive Measures

Key supportive measures will be required for implementation of result based financing measures and include i)earmarking of funds for improving service provision at government

facilities and enhancement of stewardship function, ii) increased administrative powers, and iii) capacity building of both public and private sector. These are detailed as follows:

- For improved female staff availability financial incentives alone will not be enough and need to be accompanied by Class I administrative powers for stronger administrative control, and supportive safety and security measures for female staff.
- Human resource strengthening is needed through i) clinical training of health staff in maternal complications newborn care and IMCI; ii) provision of specialist skills to general cadre in the more remote districts; and iii) increasing local supply of female paramedics to manage the BHU tier with concentration of trained doctors at the secondary care tier.
- According priority to MNCH during supervision, building necessary technical skills for supervision and ring-fencing of time from polio days and other vertical activities are also needed for more functional services.
- LHW Program requires innovative strategies for expansion of coverage as well as tightened supervision, improved health facility linkage and further training of LHWs in needed MNCH areas.
- Careful listing of certified private practitioners, development of minimum standards of care, and refresher clinical training are required prior to purchasing of private sector services. In addition technical assistance for information and financial systems will also be needed in instances where private sector facilities are used for contracting and /or vouchers.
- Enhancement of stewardship role is required for result based financing and will require sensitization, capacity building and earmarking of funds.
- Shift to strategic role will require an institutionalized practice of district needs assessment exercise on medium term basis, development of annual district health plans, linkage of budgetary process with annual health plan targets, dialogue and coordination with private sector, provision of stronger administrative control to come up with flexible solutions, improved monitoring and use of information, and retention of trained managerial staff for 2-3 year period.
- Key budgetary inputs will be required including increased financing for MNCH service provision from both district and provincial budgetary shares, significant increase and ring fencing of non-salary component, and tracking of MNCH funds through move to output based budgets. Additionally, enhanced administrative powers are needed for flexible use of salary budget to incentivize staff of peripheral facilities and use of development funds towards soft projects such as monitoring and training.
- Tangible coordination is required between the secondary, first level and community tiers under the umbrella of a district health plan to existing reduce fragmentation of the health care system and provide integrative services.

Section 6. MANAGEMENT INFORMATION SYSTEMS

6.1 Relevance of MIS

Monitoring is an ongoing, systematic assessment of information to ascertain if program is on track. In contrast, evaluation is a periodic assessment to assess achievement of programs against the set targets and to understand the reasons for shortfalls and lessons learned from them. As for any other component, M&E of MIS systems is important. The M&E of MIS systems encompasses data recapturing and data triangulation at the point from where data originates through program and independent sources and review of information flow and usage.

The results based financing (RBF) are intended to improve health system's performance through supply and demand sides' incentives. A robust monitoring and evaluation system is essential for accurate and timely tracking of outputs so as to asses the overall effectiveness of financial awards. It is also necessary for maintaining transparency in disbursement of financial awards and minimizing chances of leakages and misappropriation. This would involve strengthening institutional M&E system and keeping an external eye on validity and reliability.

6.2 Methods

Systems reviewed: The study reviewed major health and more specifically Maternal, Neonatal and Child Health (MNCH) related MIS in Sindh. For this report, the systems are categorized into MIS related to public programs and other MIS systems. The former includes First Level Facility Health Management Information System (FLCF-HMIS), District Health Information System (DHIS), and Lady Health Worker Management Information System (LHW-MIS). This chapter presents the review of MIS related to public programs.

Sampling: *The purposive sampling technique was used to select respondents. The majority of interviews were conducted with managers and MIS persons sitting together. This helped the team to relate MIS and programmatic issues.*

Checklists: *The structured checklists were developed to review the systems (Annexes 1-9).The focus of checklists were to indentify the potential RBF indicators, assess the quality of the information generated, and Review the means of verification and protocols for data storage and entry processes.*

Ratings: *Each system was rated by the respondents, who were managers and MIS persons of the program. The systems were rated based on standard indicators using scale of 1-5. The indicators included relevance, reliability, accuracy, usability, timeliness, completeness. The operational definitions are given in annex 10. The reviewers then used observations and interview notes to rate systems.*

Annex 6 presents information flow in the major systems while Annex 3 presents all the maternal neonatal and child health (MNCH) related indicators captured by each system.

6.3 I. BRIEF OVERVIEW OF MIS

6.3.1 HMIS for First Level Care Facilities (FLCF-HMIS)

FLCF-HMIS is currently being used in 22 districts of Sindh. HMIS has four databases: i) service output database; ii) health facility infrastructure database; iii) personnel database; and iv) training database. The service output database captures monthly data on outpatient services, deliveries, priority communicable diseases and preventive care including ANC, PNC, newborn registration, growth monitoring, EPI, family and planning services but does not provide inpatient data on MNCH emergency admissions. Data entry is done at health facilities and computerized aggregation is conducted in districts at EDO-Health Office. HMIS also allows for reporting from private health care facilities on the standardized HMIS format however except for rare instances, reporting from private sector has not been implemented. Updating and record maintenance of other databases is also required. Health facility infrastructure database requires annual updating from all health facility on key aspects related to presence of basic amenities and availability of furniture and equipment. Personnel and training databases require continuous updating on availability of health staff, postings, and training. Each district is sanctioned with a post of an epidemiologist (a 17 grade officer), a statistician and a data entry officer.

6.3.2 District Health Information System (DHIS)

DHIS is an expanded and more user-friendly version of HMIS and is being piloted in Thatta district of Sindh. DHIS captures information on 15 inpatient indicators and 44 outpatient indicators and tools used are simpler and more comprehensive. Relevant MNCH indicators in addition to those covered by HMIS includes almost all MNCH and EmONC related indicators like ante partum hemorrhage, postpartum hemorrhage, preeclampsia/ eclampsia, prolonged/ obstructed labors, puerperal sepsis, birth trauma, birth asphyxia, prematurity etc (for details refer Annex 3). Data is reported from all FLCFs and hospitals with computerized entry intended to be undertaken at the Taluka Hospital level. It relies on client-server arrangement for timely transmission of computerized data and hence cut down on time lags related to HMIS. The client server arrangement also provides a data back-up system which is not present in the HMIS. The computerized program is an easier Windows version as compared to the DOS based system of HMIS.

6.3.3 People's Primary Health Initiative (PPHI)

The PPHI utilizes the HMIS-FLCF system and in addition also has collects information on ear-marked indicators of the PPHI program. These include staff attendance, OPD, and stocks and are collected through PPHI monitoring checklists. Data on these is separately collected through monthly reporting by BHUs on PPHI performs and through surprise checks. PPHI puts particular emphasis on surprise checks and facilities are provided with mobile phones to make critical information on attendance of staff and number of OPD patients readily available. HMIS reports from BHUs are sent to EDO-Health Office for compilation while other information is separately compiled by PPHI. Compilation at district PPHI offices is manual or at best EXCEL based and as such there is no software for entry, storage and snapshot analysis of PPHI data.

6.3.4 LHW program

The LHW program is the only source of community based data. It collects information on number of clients at the community level, health and demographic profile of clients, preventive services provided by LHWs, referrals to health centre and number of deliveries, births, and maternal and infant deaths. It has well-designed cross-verification system and relies on monitoring and cross checking of information at the community level through Lady Health Supervisors and District LHW Coordinators. In addition provincial and federal cross-checking of data is also in built into the LHW Program. The LHW Program however has no software for data entry and analysis with information manually compiled at the district level and aggregated in EXCEL at the province.

6.3.5 Key Cross-Cutting Issues:

The review of MIS revealed generic issues that were cross cutting across system and specific issues related to a system. The issues are presented below.

Fragmented MIS system working in isolation: At present there is no single MIS system in the government sector. Monitoring comprises of different monitoring information systems working in isolation. Amongst the different MIS in place the LHW Program selectively targets community based information while rest of the MIS including those of the HMIS, DHMIS, PPHI systems, Population Welfare Program exclusively target the health facility level. As such there is no system which provides MNCH information across both facility and community levels. The current arrangement also does not provide any opportunity to verify or triangulate the findings of one system through other.

Relevance of Data Collected: A concerted effort needs to be made to include all relevant MNCH indicators in reporting from districts. At present reporting is being done only on routine MNCH services such as ANC, delivery, PNC, growth monitoring, immunizations, and child OPD, through the different systems in place however there is no system of reporting on EmONC indicators. The DHIS is the only system that allows for reporting on inpatient data including key EmONC indicators. The DHIS needs to be expanded to NPPI districts for more comprehensive reporting on MNCH services or alternatively a new system put in place in NPPI districts for reporting on all required indicators.

Staff Related Issues: Frequent transfer and shortage of female staff at the health facility level is a cross-cutting issue that affects data entry and record keeping of MNCH services. Recently, PPHI has shown some success in female staffing this area by increasing the remunerations of female staff. However newly posted staff lack orientation to MIS leading to inaccurate and poor record-keeping. Staff retention measures as well as building in training for new staff needs to be implemented for improving record keeping.

Accuracy of Information: Accuracy of information needs to be improved and requires cross-validation checks. There is a critical lack of crosschecking of data at the level at the level of data entry by service providers and LHWs. This is due to low emphasis by program managers as well as lack of sufficient budget for fuel. The only check that districts and province run are the internal consistency checks on number of facilities or LHWs reporting. In several of the visited at health facilities, information on MNCH services is incompletely filled, there are discrepancies between the monthly reports sent to district office and registers maintained at health facilities with tendency for over-reporting in monthly reports, and instances entry of

uniform readings for all patients are seen giving rise to questions on validity of data. Anecdotal evidence also suggests under-reporting by LHWs on maternal and infant deaths.

Lack of importance on use of information: Limited use and distrust on information was a common theme found across the systems. The only major use of information is to take action in case of reporting of notifiable diseases. While the MIS allows facilities to report on service outputs and issues but these issues are never followed by the higher authorities nor are linked with planning and budgeting processes. Lack of feedback from higher authorities de-motivates district MIS staff as service provider and LHWs involved in reporting from the field. The LHW program is designed to take non-reporting more seriously. By protocol, LHWs should be issued with three warnings and then termination letter on non-reporting for four consecutive months. However, this does not happen often on ground due to difficulty n finding LHW replacements and

Inadequate maintenance of health facility infrastructure and personnel database: Although eh HMIS and DHIS are designed for maintaining a database on health facility infrastructure, equipment and furniture, these databases is not in use in most districts. Similarly the personnel databases and training databases of HMIS are also not in use despite presence of computerized software for record of information in each of the NPI districts.

Lack of reporting on private sector: The HMIs is designed for registration of private sector facilities and reporting of private sector outputs. However for except for a handful of NGO projects there has been no attempt made by HMIS to include private facilities in the reporting system.

Data transmission related issues: Quick access to aggregated information is lacking in most districts. The PPHI and LHW systems at the district level are non-computerized while the HMIS is computerized but relies on receiving of reports from health facilities prior to computerization at district level and can lead to time lags due to late reporting by health facilities. The DHIS system is superior as it provides instant transmission of data through internet server however has been facing technical start-up problems. Furthermore, data backup, storage and transmission protocols also need to be strengthened of existing programs.

6.4 II. SPECIFIC ISSUES RELATED TO INDIVIDUAL PROGRAMS

6.4.1 First Level Care Facility HMIS (FLCF-HMIS)

Lack of ear-marked funding for HMIS: The HMIS system since its initiation since 1993 has been funded through different development projects and lacks a sanctioned regular budget. Availability of funds for HMIS implementation and upgrading therefore depends on approval of independent development projects, and even when approved is dependent on the more onerous process of fund release for development projects. Development funding is mostly confined to the provincial level and there is little trickle down of funds to the districts. District health budgets also do not have ear-marked funds for HMIS and also are extremely under-budgeted in terms of non-salary operational expenses.

Data transmission issues: The data reporting system relies on transmission of collected information from district level. The review of data receiving log showed a lag of 6 to 8 months for 4 districts. Instant accessing such as through the DHIS would reduce time lags in reporting. Furthermore, each district uses different modes of sending data with data sent in

flash drives, compact drives (CD) and emails and back-ups are kept at both offices and homes of HMIS staff. These are critical violations in data management, transfer and storage protocols.

Expansion of Training needed: A key feature of the HMIS is the annual conduction of refresher training. However these are subject to fund availability and at present are confined to yearly refreshers for data entry staff. Training need to be expanded to data entry training for health facility staff and should include BHU staff newly inducted staff under the PPHI. Training on use of information initially conducted under the Family Health Project have also been discontinued and need to partially address district health care mangers including EDO-Health Office, PPHI and MS of DHQ and THQ hospitals.

***Shift to DHIS*:** It is planned that the FLCF-HMIS will be replaced by DHIS and funds have been requested from MNCH Program and PAIMAN projects. Due to this expected shift, there is at present low interest at both province and district levels for improving the HMIS.

6.4.2 District Health Information System (DHIS)

Technical Issues Faced in Piloted Project: The piloting of DHIS has been marred by problems with client server and lack of hands on technical support to trouble-shoot piloting issues. The DHIS has a formal client-server arrangement for data saving, backup and transmission due to which the provincial office can access district data at anytime cutting down on time lags for reporting. However, the Thatta pilot shows that DHIS data could not be accessed even once during the past year due to technical issues related with client server and there have been multiple crash down of system in the past one year. The change of software from LINUX to Windows version has also slowed down the program with 15-20 minutes taken to run a single save command. The pilot gets very limited support from the province and federal offices. The present staff handling data entry person have had no formal training and has to multiple tasks besides entry, such as writing memos and letters for the EDO office.

6.4.3 People's Primary Health Initiative – MIS

Issues Related to Use of Two Monitoring Systems by PPHI: While the PPHI uses the HMIS it also has its own monitoring system on which major monitoring emphasis is provided. While there is good accountability check on data separately collected by PPHI as well as timely usage, the separately collected information gives little emphasis to MNCH indicators. Use of HMIS given indicators would bring in the required emphasis however compilation of HMIS reports from BHUs is presently at EDO-Health Office and would require either shifting of BHU related information for compilation at district PPHI offices or increased coordination between the two agencies in case of continued aggregation at EDO-Health Office. In addition skill building training in data recording and entry are required of health facility staff under PPHI as well as training of PPHI district managers on importance of MNCH service indicators and their use in programming of health care services.

6.4.4 LHW MIS System

Reduction of workload on LHWs: LHWs are overworked as new programs and responsibilities keep coming in. District *program managers mentioned that LHWs do not concentrate on their primary job fully due to involvement in polio day activities,* PAIMAN

project and other incoming project which affects the quality of data recorded. Reduction of workload on LHWs is needed along with proper emphasis from district and provincial managers on timely and accurate record keeping.

Lack of Computerized Information: Districts find it difficult to keep an updated aggregated record of information on LHWs program as data is manually collated with computerization taking place at provincial level. A computer entry system at district level is being piloted at districts Thatta and Ghotki, Tando-Alayar and Matiari.

Emphasis on cross checking however hampered by poor program management: The LHW Program is the only system having well-designed cross checking and validation at all levels. The monitoring in program entails visits by District LHW Coordinators, Lady Health Supervisors and provincial Field Program Officers to determine LHW's performance. Information is used for decision making as was seen in the following areas:

i. Most districts showed letters of terminations for LHWs not reporting.
ii. The LHW who performed best in providing FP services to her community was rewarded.
iii. The LHS fills out performance based checklist for each LHW where she give quantitative ratings in percentage.

However frequent shortage of funds for of fuel hampers LHS monitoring and due to reporting pressures the LHSs resort to reporting without adequate field verification of data. Once data grafting practices start these continue even if field monitoring resources are made available. Moreover, there is no system of surprise checks with the result that actual on-ground performance does not get properly validated. Pressures of presenting a favorable record also leads to under-reporting of maternal and infant deaths and over-reporting of contraception provision by LHWs.

6.5 Rating of the Systems

The LHW because of capturing community level information and data verification at various levels was rated higher. The system has high relevance to RBF schemes as it captures key outcome indictors such as maternal mortality ratio and infant mortality and contraceptive prevalence rates. Our review indicated that the information in most cases was complete with rare incidences of missing pieces. The timeliness of reports was remarkable. The only discrepancy seen in one of the districts was that the LHW reported that she could not make the last visit; however, LHS report showed that visit was made by the particular LHW. Moreover, in one district the LHW reported that LHS forces them to underreport MMR and IMR and over report CPR.

For FLCF-HMIS, we corroborated the information at the district level with the facility data. It was seen in quite a few instances that data from two sources were not consistent. For instance, the number of deliveries was over reported in the facility report but registers showed less deliveries. Similarly, in one district all births were of 2.5 kg and in other all babies weighed 3kg. There were also delays in reporting. The interviews with district staff also revealed that due to the absence of cross checking mechanisms, there is no accountability on reporting. Moreover, the FLCF-MIS is now shifting towards DHIS and therefore it is not useful to invest on this system.

Table 6.1: Reviewers' Rating of MIS							
	Relevance	**Reliability**	**Accuracy**	**Usage of info**	**Timeliness**	**Completeness**	**Overall**
LHW - MIS	3	4	3.5	3	4	4	4
PPHI	2	2	2	2	3	3	2.5
DHIS	4	2	2	1	1	2	2
FLCF-HMIS	2	1	1	1	2	2	1.5

Source: NPPI feasibility study, 2009

The PPHI, although has management that emphasizes on monitoring and quality assurance but does not have a fully developed system of its own to provide information for RBF.

System is performing better in terms of timeliness and completeness but need to increase their system relevance, reliability and accuracy.

The DHIS is a good system on paper, if properly implemented; it can be a useful system for RBF. It has inpatient indictors which makes the system more useful for incentive based schemes. However, the system needs a more comprehensive pilot before being utilized for such schemes.

6.6 Section Summary

Improvement of existing system is needed:

- The FLCF-HMIS system is not ready for RBF in current form. The accuracy and current usage of information by the program is very low. The validity and reliability of information is questionable.
- On paper the DHIS is a better system than the FLCF-HMIS. It is simpler and more comprehensive, covering majority of MNCH and EmONC indicators than FLCF-HMIS system. However, rating is low in terms of its accuracy and need technical improvements. It should be piloted in few more districts, perhaps for a shorter time than Thatta pilot, to stabilize the system before taking scaling up.
- The PPHI- MIS system is better in terms of timeliness and completeness of information. However improvements are required in emphases to MNCH indicators
- The LHW program is the only means for community level information. Ratings indicated that the system is better than any other program while measures required to be taken for its accuracy and usage of information.

Recommended Measures:

- The MISs should have strong internal monitoring and quality assurance processes to implement incentive based projects such as NPPI. The internal monitoring mechanism

should validate the information captured through MIS on an ongoing basis. The internal monitoring must include surprise/spot checks. The relevant staff in the districts should be trained on internal monitoring, spot checking and reporting mechanisms. Refreshers should also be conducted on the definitions of the indicators included in the NPPI program.

- As a pilot, the NPPI should include DHIS and LHW program's MIS for the pay for performance scheme. However, DHIS needs a more comprehensive piloting before being fully used for NPPI. The pilot could be done in two to three districts for about six months. It should mainly focus on checking the functionality of the client-server arrangement for data entry and transmission to the provincial office. For this the two programs should have consultative meetings to align indicators for validation. In areas that not currently covered by the LHW program, a short term measure could be the spot checks by the NPPI third party in the district.
- Given the sensitive nature of schemes, there should be an external party to monitor the quality and integrity of data.
- Independent party is needed to monitor the validity of recorded service output data for payment of award. An independent party placed in the district could validate the information captured by the systems and monitor the functionality and performance of the internal monitoring systems. Incentives should be given after validating the information given by the MIS and the third party.
- Survey based validation of information is needed on a yearly basis this could be done by a consulting firm chosen through a competitive process. The major role of independent party would be to conduct comprehensive representative surveys at district level every year.

Section 7. FUND FLOW AND FINANCIAL INFORMATION SYSTEM

7.0 Introduction

Section 7 reviews the health care financing system in the public health sector in the province of Sindh. The main purpose of this chapter is to contextualize results based financing for MNCH within the existing system of budgetary allocations, tiers of authority, and financial information systems so as to recommends specific changes that are required at different tiers of the financial system for introducing financial incentives.

7.1 Methodology

I) Budgetary analysis was carried out through examination of budget record of the Department of Health Sindh and District Governments in the two districts of Shikarpur and Badin. However time series data of both the districts were not available. II) Financial flows were also discerned from provincial and district data and from interviews with relevant financial managers. The same procedure was applied with vertical programs. III) Financial information systems were discerned through interviews at the district level at the DCO, EDO Health and EDO Finance offices at the district level. In addition, finance officers of the EDO health were interviewed in detail and accounting systems observed through developed checklists in all ten districts. A similar procedure was adopted to obtain information on federal programs.

7.2 Health Allocations

Budgetary analysis is provided to gauge allocations to the health sector in the provincial and district budgets and the analyses enables our understanding on three elements: i) the priority given to health by the provincial and district governments, ii) an indicative analysis of per capita expenditure on health at the district level, iii) intra budget allocations towards salary and non-salary components that provide an indicator for qualitative change through budgetary mechanisms.

It needs to be recalled that the importance of the provincial budget as the primary vehicle for the delivery of health services in the province has greatly diminished since the devolution of powers to local government were instituted in 2001. According to the World Bank (2005, p22), roughly 60% of provincial government expenditures were transferred to the districts.

In the current fiscal year, the government of Sindh has allocated 4.6% of its current budget for the health sector. On the development side, the share for the health sector is 6.38% of the total budget. This is amply reflected in the share of allocations to health taking a significant dip in the post 2001-2 periods, both in the case of current and development expenditures (see Table 1 below). The share of the current budget has revived somewhat after a sudden surge in 2005-06 but is still significantly below the levels at the time of devolution. The largest component of the current budget is salaries. Even after devolution, salaries of all health sector personnel in Grade 17 and above are the responsibility of the provincial government.

A more significant reduction has taken place in the development budget. As we see in the table below, the share of the development budget halved in the immediate aftermath of

devolution. In fact there has been a steady downward trend in the share of the health sector in the provinces' development portfolio.

Table 7.1. Share of Health in Sindh Provincial Current and Development Budgets (2001-09)

Year	Health as % Share Of Current exp	Health as % Share of Development exp
2000-01	5.64	15.98
2001-02	5.63	16.36
2002-03	2.85	7.58
2003-04	3.01	7.12
2004-05	3.02	4.41
2005-06	10.60	7.22
2006-07	3.25	6.72
2007-08	4.47	5.77
2008-09	4.60	6.38

Source: Annual Provincial Budget Statements (Various Years), Government of Sindh.

7.3 District Level Public Spending on Health

Since most of the health expenditure takes place at the district level and a large part of it is controlled by the district government, it is more instructive to gauge public expenditure at the level of the district. First, per capita expenditure on health through the public sector will provide an important indication on adequacy of funding. Second, the allocation on health by the district government will provide some insight on prioritization of health in district finances. Third, to get a handle on quality of allocations it is useful to disaggregate district level expenditure between its salary and non-salary components.

It was not possible to estimate per capita public spending on health for all the 10 districts because of non-availability of consistent information. As a result, the following information is provided for the Shikarpur District. In some cases, comparison with the Badin District are also presented.

7.4 Per Capita Expenditure on Health

The total health expenditure for the district was calculated by aggregating expenditure undertaken by the district government as well as expenditure of federal programs related to MNCH. Based on the calculation, for 2008-09, the nominal per capita expenditure for the district of Shikarpur, as shown in the Table comes to Rs. 274.8. World Bank (2005) had earlier done a per capita expenditure analysis for 2004-05 was Rs. 210. Given the high rates of inflation, in **real** terms, per capita expenditure in the district is expected to have declined.

Table 7.2. Per Capita Public Health Expenditure of District Shikarpur (2008-09).

Total Public Sector Health Expenditure	Rs. 35.5 million
District Population	1.3 million
Per Capita Expenditure	Rs. 273.07

7.5 Health Allocations of District Government

Health Expenditure of the Shikarpur District government for the current year (2008-09) amounted to Rs. 327.9 million. As a share of the total district budget of Rs. 2.39 billion, it is 13.68%. In comparison, the share of health in the district allocations of Badin was roughly 16% for the same year. The range of the share of allocations is expected to be about the same in other districts also. While time series analysis will be required to track changes over time that have occurred, the pattern is that budget shares do not alter much and growth in nominal budgets generally match the rate of inflation. Increase in the share of the budget only takes place when new schemes are completed and their recurring expenditures are added to it. Budget allocations, however, are not indicative of qualitative aspects of spending.

7.6 Salary and Non-Salary Components

Allocations spent on non-salary items provide an insight into the extent of qualitative improvements that take place. Spending on medicines, medical supplies, etc. are essential for proper medical care of patients. We see that more than 86% of the district budget is allocated to salaries. Since salaries of those belonging to Grade 17 and above are paid by the provincial government, this indicates that there is significant over employment in the lower grades in the district. While we do not have data for changes in the share of the two categories over time, it can be safely said that the share in the salary component would have increased over the years as salaries increase frequently to keep the real wages intact.

Table 7.3. share of Salary and Non-Salary Components: District Shikarpur

Health Department	Salary Component (2008-2009) (Rs)	Non-Salary Component (2008-2009) (Rs)
EDO	86.2%	13.8%)
LHW	61.9%	38.1%

7.6 Financial Flows

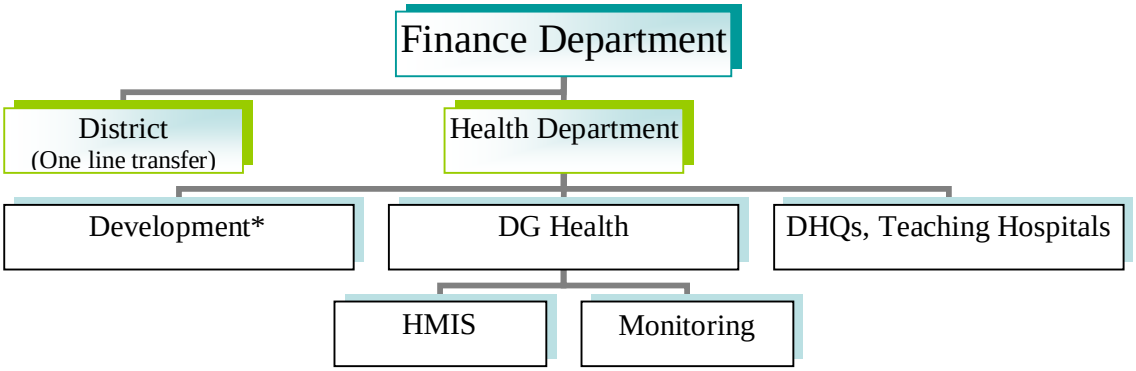
Understanding the financial flows helps in understanding the relevant tiers where financial authority lies and the degree of transparency of the system. There are four tiers of financing for the public sector health system. These are provincial government, district government, the PPHI program and the federally funded programs. Details on health sector financial flows to the districts from these tiers are provided below:

7.6.1 Provincial Government Flows

After the Devolution Plan, the provincial government's involvement in primary level health care financing has become virtually non-existent. The development component of the provincial health department budget now concentrates on development work at the provincially owned teaching hospitals and DHQs that have capacity of more than 50 beds. In addition, the development budget also picks up certain costs of federal programs. While some of these costs are clearly in the domain of recurring expenses but are paid through the development budget.

On the recurring side, the Health Department's expenditures are essentially divided in three areas. The Directorate of Health Services is now only involved in monitoring & evaluation as well as operating the HMIS dataset. Besides the directorate, the provincial recurring budget also finances its teaching hospitals and those DHQs that are over 50 beds and remain under the domain of the provincial government. Moreover, the provincial government also picks up the salary expenses of personnel in grade 17 and above. The financial flow chart is given in Figure 1.

Figure 7.1 Provincial Government Flows



* (New DHQs, Matching Grants for Federal Projects)

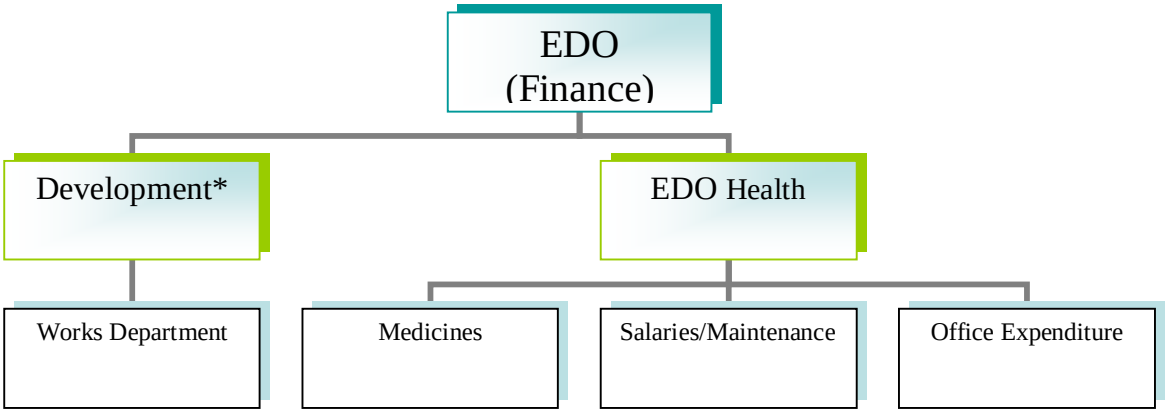
Funding for the districts takes place directly from the finance department of the provincial government as a one line transfer to the District Government based on the Provincial Finance Commission Formula devised to distribute provincial finances across different districts. Both development and recurring expenses on health are then the responsibility of the District Government.

7.6.2 District Government Flows

The District Government receives a one line transfer from the provincial government and then allocates funds across sectors based on its own priorities. The recurring health budget is handled by the EDO health, who is responsible for disbursal of salaries, procurement of medicines and other miscellaneous expenses. Apart from salaries, which are tied to the number of allocated posts, the largest component of the budget is on a medicine which comes under the purview of the EDO health.

The Development budget is conceived by the EDO health office and one included in the provincial ADP, its disbursements are made by the EDO finance office, with the works department responsible for execution. The operationalisation of the new facility is the responsibility of the provincial government that has to allocate staff for the facility while all other expenses are the responsibility of the district government.

Figure 7.2 District Government Flows



*Development of New Facilities and Up gradation of Old Facilities Including RHCs, BHUs, Dispensaries, MCH Centers, THQs and DHQs (THQs and DHQs with less than 50 beds)

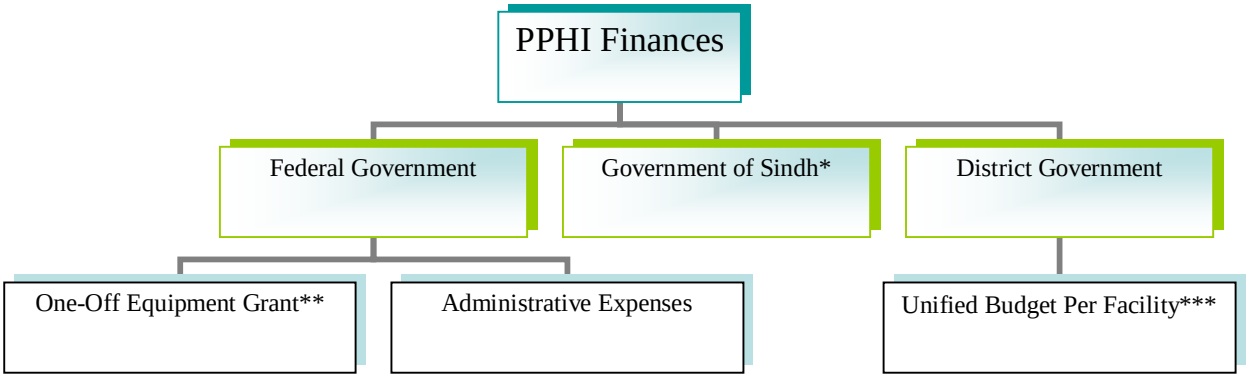
Till recently, all public sector health institutions except District Headquarter Hospitals with more than 50 beds came under the purview of the district government. Since the initiation of PPHI, in seven out of the ten districts that come under our purview, BHUs and dispensaries. The recurring budgets – salary and non-salary - for these facilities are transferred as a one line transfer of Rs. 50, 000 per facility to PPHI from the EDO health.

7.6.3 People's Primary Care Health Initiative (PPHI)

This is an arrangement between a quasi-government service provider and district governments. The agreement signed between district governments and PPHI entails that all BHUs and dispensaries will be handed over to PPHI. As such all recurring costs (salary, non-salary and maintenance budgets) of the facilities will be the responsibility of PPHI. For this purpose PPHI will be provided Rs. 50, 000 for each facility handed over through a one line transfer. The PPHI is responsible for all salary and non-salary expenditure on facilities. However it has the flexibility of altering line items according to priorities that it sets for itself.

In order to over come the perennial problem of staff absenteeism, the PPHI has created clusters of BHUs that are served by one doctor and depending on the number of BHUs in the cluster (that differ between districts), the sanctioned salary for the doctor at each facility is provided to the one who is serving the cluster. Depending on the size of the cluster, doctor salaries have increased between three to five fold as a result of this institutional innovation.

Figure 7.3 PPHI Fund Flows



*One-off Grant for Repair and Renovation
** One-off Grant of Rs.100, 000 per BHU
*** Includes Salary and Medicine Budget with Authority to Alter Line Items

According to PPHI personnel, the budget handed over to them is sufficient for not only providing incentives to doctors to attend but by reducing red tape and corruption they are able to provide medicines to clients at the facilities also. The administrative budget of PPHI is provided for by a federal grant. The financial flow chart is given below.

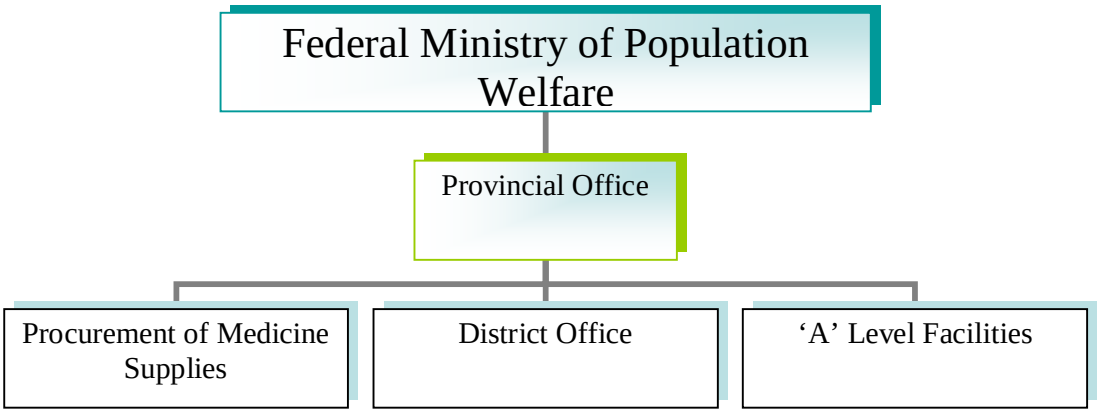
7.6.4 Federal Government Funded Parallel Programs

There are three federally funded programs relevant to MNCH. The common thread running through all federally funded programs is that the bulk of the finances are controlled at the federal level. Key expenditure items, such as salaries and supplies are largely controlled at the federal level. The provincial offices of the programs carry greater authority than the district offices. Details of fund flows for the LHW and family welfare programs are given below.

7.6.5 Population Welfare Program

The program works under the Federal Ministry of Population Welfare. There is a one line transfer from the Federal Government to the provincial head office of the Program. The provincial office then provides funds, heads wise to the district office and to 'A' outlets separately. The 'A' outlets are operated by the Program itself and provides operating facilities for Tubal Ligation. The District office handles expenses of 'B' facilities. The 'B' outlets are registered service providers that include doctors, hakims and homeopaths, from where

Figure 7.4 Family Planning Program Fund Flows

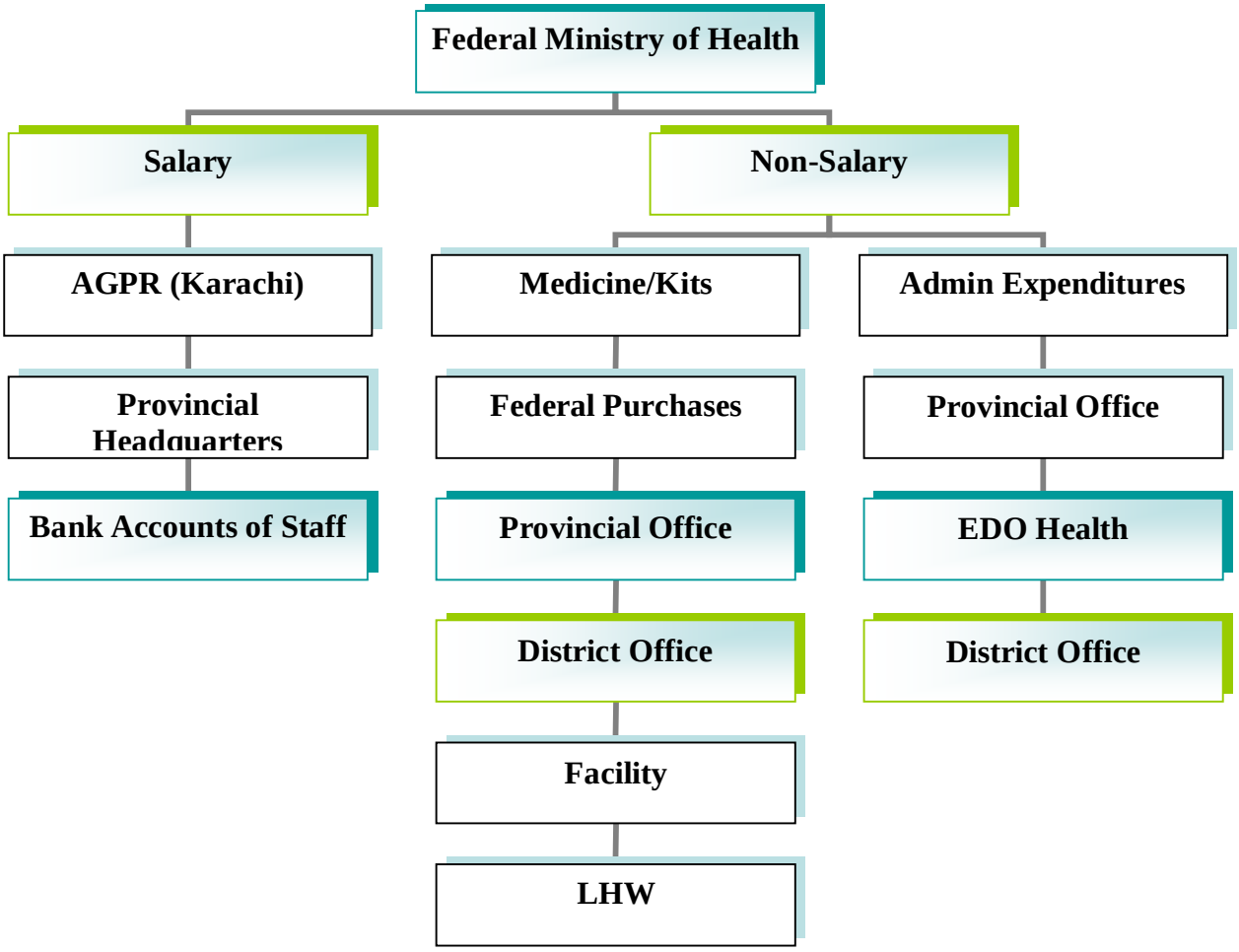


supplies are provided free of cost to those who demand. Funds for salaries and other expenses are provided head-wise by the provincial office to the district office and to 'A' facilities separately. Medicine and supplies, however, are procured at the provincial level and then supplied in the same manner as funds are supplied.

7.6.6 LHW Program

As we see in the fund flow diagram, financial authority is centered at the federal level. Salaries are the largest accounting head of the Program. They are dispatched to the provincial office through the provincial office of the AGPR. From the provincial office, salaries are directly dispatched to the bank accounts of the LHW. The second largest expenditure of the program is the provisioning of medicines/supplies and kits. While a kit supply is a one time provision, medicines and other supplies are provided on a quarterly basis. Again the system is centralized, with purchases taking place at the federal level. It is then transferred to the provincial level, from where it is distributed to the district levels and then to the facility level from where it is provided to the LHWs. The only head in which fund flows actually go to the district level is for district office salaries, office expenses, POL and vehicle maintenance. Funds in this case are transferred from the provincial office to the EDO Health's account and it is then disbursed to the district office. The only point of interaction in this program with another tier of government is with the district government.

Figure 7.5 LHW Program Fund Flows



7.7 Financial Information Systems (FIS)

Financial information systems at the district level are reviewed in terms of existing practices, strengths and constraints at the local level in order to provide lessons for administration of results based financing. The FIS analysis was conducted on the basis of secondary data analysis and structured qualitative interviews. Interviews were conducted at the district and provincial levels with the EDO health, the PPHI and the federal programs. There were five different categories for which information was sought:

i) Link between financial systems and MNCH related outputs
ii) Computerization of financial records
iii) Frequency with which financial information is updated and reconciled
iv) Human resources: The quality of human resources and vacancies (if any) in sanctioned posts

v) Timeliness of Disbursement of funds at different tiers.

A detailed ranking for FIS systems for each district is given in Annexure 15. Below we summarize relevant variable identified above in their performance across districts.

Table 7.4. FIS Ranking: Consolidated Across Districts*

	EDO	LHW	PWO	Overall
Link with Output	1	1	1	1
Computerization	3	3	2	3
Frequency of Record Keeping	4	4	4	4
Human Resources	3	3	3	3
Timeliness of Disbursements	4	3	2	3

*Ranking is on a scale of 1-5 and in ascending order.

7.7.1 Linkage With Output

Across the entire system, we did not encounter a single instance where the financial system is linked in any way with either MNCH outputs or with other health related outputs. Not only was there no output based system in place, in all our interviews with financial managers across different programs, but no knowledge of systems elsewhere or intent of introducing them either. It is self evident that if an incentive based system is to be put in place linkage with output in the financial system will have to be created.

7.7.2 Computerization of the Financial System

Computerization of records facilitates sharing of information easily and in a timely fashion. One pattern observed was that wherever the system was fully computerized in the EDO health's office it was also the case with district offices of the federal programs. Full computerization of records was also found at the PPHI district offices. Of the 10 districts, the EDO health records were computerized in 5 districts – Badin, Jamshoro, Umarkot, Tharparkar and Shikarpur. In two districts – Kambar and Shahdadkot – the system is partially computerized, i.e. routine entries are done manually but account settlements are done on the excel program on the computer. In these districts, the LHW and PW programs have manual accounting systems.

In the remaining districts, neither were district accounts computerized nor were those of other federal programs.

7.7.3 Frequency of Record-Keeping

In all districts we were informed that account settlements take place on time. The EDO's office reconciles accounts every month and submits them to the DCO's office. For the federal

programs, reconciliation takes place once a quarter and submitted to the provincial office of the program.

7.7.4 Human Resources

There are three elements with regard to human resources that are relevant for the purpose. First, if sanctioned positions are filled in the accounts office. Second, if the educational requirements of the positions are duly complied with and third, if personnel undergo training for new systems and methods of accounting.

Across all districts and all programs we were informed that all sanctioned posts were filled. We were also told that all officers in the accounts department had the requisite qualifications for their jobs. On training, by and large the picture was that the staff had not received any training. The only exception was training in computer use in one district at the EDO office (in Jamshoro) and the LHW staff in another district had been through training courses (in Kashmore).

7.7.5 Disbursements

In terms of disbursement of funds, the EDO offices in all districts did not have any problems in receiving disbursements from the EDO finance office. The disbursement cycle is monthly. This goes to show that the chain of fund disbursements from the province to the districts is also taking place in a timely manner. The federal programs, however, suffered from delays. Delays of one to two months in disbursements were generally found for the LHW program. Disbursements are made quarterly for the program. In the population welfare program, delays were termed as 'significant.' In this program, salary disbursements are made monthly while non-salary payments are done on a quarterly basis. Delays were being experiences on both counts.

7.8 Section Summary

Budgetary Allocations & Required Needs

- Per capita expenditure is low and is suggestive of very little increase over time.
- 60% of the provincial budget has been devolved to the district level and requires targeting and capacity building of district managers for improvement in MNCH services. However non-salary operational budget has been squeezed over the years and requires budgetary enhancement as well as administrative powers for flexible use of salary component.
- Guidelines are lacking for purchase of medicines and use of supplies budget lies on discretion of EDO-Health. There is therefore the risk of inappropriate purchase of medicines as well as purchase of inferior quality of medication and requires development of adequate protocols for supplies forecasting as well as stringent guidelines and oversight for purchasing.
- Salary budget for grade 17 and above has not been devolved to district level and financial authority over the medial cadre continues to lie with the provinces. This is a constraint in terms of overseeing staff attendance and requires addressing through devolvement of powers to district.

- District budgets have only been incrementally increased over the years to adjust for inflation or to accommodate for government announced rise in salary. Budgetary forecasting and development requires to be linked with a needs assessment exercise.

Financial Information Systems for Result based Financing

- Financial systems are input based and managed by staff unequipped for move to output based systems. Financial systems need establishment of an interface with MIS for implementation of result based financing mechanisms as well as hiring of trained staff with relevant capacity.
- Disbursements from district government budgets face minimal time delays as opposed to centralized systems of vertical programs. For speedy disbursements of financial rewards, incentivized funds will need to be devolved to district level and follow an advance reimbursement system.
- Financial accountability procedures are less than optimal for introduction of result based financing mechanisms. Creation of a post similar to that of the CFO at the district level is needed who is then directly accountable for implementing and monitoring the financial side of incentivized mechanism.

Section 8. POLITICAL FEASABILITY OF FUNDING MECHANISMS

8.0 Introduction

This section explores political acceptability of health care managers, service providers and community for different incentivized mechanisms. It examines stakeholder willingness to shift to incentivized mechanism, expected translation of effect on improvement of MNCH service, as well as fears and expectations related to its implementation. It concludes by presenting the relative popularity of individual mechanism as well as potential positive and negative features.

8.1 Methodology

The component made use of qualitative data involving in-depth stakeholder interviews of provincial mangers, EDOs-Health, MS of DHQ/ Civil Hospitals, district government stakeholders and notable private sector provider / representatives of Pakistan Medical Association. Group discussions were conducted with key health facility staff involved in MNCH including lady doctors, LHVs, MO and vaccinators and included staff from both non-PPHI as well as PPHI facilities. Separate focus group discussions were held with LHWs and community.

Mechanisms explored included: district based awards (SWAP like arrangements; management contracts to private sector; contracting private sector facilities for services, incentives to providers at government facilities, CCTS, and vouchers (See Section 1 for details of mechanisms). All listed mechanisms were explored with provincial and district health managers and health facility staff; only contracting, vouchers and provider incentives were explored with private providers; while only vouchers and CCTs were explored with community. Preference amongst mechanisms, motivations and expectations for explored mechanisms, potential positive and negative effects, and preferred implementation modalities were examined. Allowance was also given for proposing of alternative mechanisms in addition to those listed. Popularity of mechanisms was rated on an ascending scale of 1-4 using three different raters and presented in a Force field Matrix. An analysis of underlying factors behind stakeholder ratings is provided in descriptive text.

8.2 Stakeholder Preferences for Different Mechanisms and Underlying Reasons

8.2.1 High Demand for Vouchers Amongst clients but Mistrust of CCTs:

Vouchers: Vouchers were preferred over CCTs to support the poorer community members for making use of MNCH. The pre-paid nature of vouchers was a main attraction as it would avoid recourse to borrowing of money on high interest rate from money lenders, sale of gold or livestock assets, and also avoid the hassle of arranging for cash at short notice. Moreover, the poorer of the poor found it difficult to raise a loan even from money lenders and hence unavailability of cash for transport and medical expenses was a major barrier felt to be addressed through pre-paid vouchers. It was particularly felt to be beneficial for emergency situations. Another favorable feature from community's perspective was the freedom of choice provided for accessing preferred health provider as opposed to restriction of provider in CCTs. Lastly, there was less mistrust related to use of voucher in comparison to CCT as it did not involve direct cash transaction however community demanded fair and transparent

mechanism of disbursement preferably involving a non-government agency and taking village elders into confidence.

Client Cash Incentives (CCTs): There was generally poor reception of CCTs due to unavailability of ready cash in hand to access services as well as mistrust of health care providers in terms for transparently providing cash incentives. Clients who are unable to arrange money to seek care or cannot arrange money at short notice may not benefit out of such scheme. Cash transactions were also related with high chances of corruption and misuse of funds at both public and private sector service delivery outlets and comparatively greater suspicion was attached to routing of funds through public sector health facilities. The main demand from clients was of functional and affordable services and assistance with transport.

8.2.2 Health Facility Staff Favor Provider Incentives Supplemented by In-Kind Incentives

Amongst health staff there was high acceptance for provider incentives, mixed willingness for client incentives and extreme wariness of other mechanisms such district based awards or contractual arrangements.

Provider Incentives: Staff was generally willing to work if better payment was provided with example given of the parallel PPHI system which provided higher salaries for all facilities as well as increased amounts for remoter areas. Volume based payment was acceptable topped on a basic salary package with rates equal or close to 50% of fee charged in comparable private care settings. In addition emphasis was given to calibration of payment according to health facility location and by regular versus off-duty hours. Total salary package should be adequate to cover high cost of private transport which is usually the only mode of transport available in peripheral locations as well as provide sufficient incentive level to work in peripheral locations. Emphasis was given to prompt disbursement and direct deposit directly into bank accounts. Additionally, there was demand of opening of reward to include all categories of technical staff including specialists, non-specialist doctors and paramedic staff, whosoever is available to provide services.

Accompanying Measures for Staff Incentives: Safety and security for female staff was a main concern with suggestion of pairing of female staff in off duty hours, presence of male chowkidar, upgraded facilities for on call and residential staff, sufficient incentivization to allow accompanying by male family member and general emphasis at higher level on female staff protection (See Section 5). There was also fear of claiming false cases and manipulation of data to show falsely high output by service provider. Need for strict attendance and monitoring was emphasized, however nature of monitoring should involve positive encouragement and technical guidance whereas mere 'policing' by superiors would result in low work interest despite attractive incentives. Short-term and project linked nature of incentives was also a concern with discontinuation after project life resulting in reversion to low pay scales but at the cost an increased workload. Finally, accompanying skill enhancement was also highlighted with existing skills deemed inadequate particularly for dealing with MNCH emergencies.

Contracting: Extreme wariness was seen of working under private sector management due to loss of job security, increased workload and maintenance of strict attendance and punctuality. Willingness improved with building in of staff incentives under private sector management contracts however work willingness even with incentives was linked with facilitatory and

encouraging nature of monitoring. There was skepticism of NGOs as effective health care managers however there was better acceptance of working under large well known NGOs. Lastly, political ramification of contracting on health facility staff was also an added concern. Low political acceptance of contracting in the higher government set up, as seen in the case of the PPHI initiative, resulted in tussle over staff postings and reporting authority leading to unnecessary stress, work disruption and fear of offending 'two masters' for staff concerned.

Client Incentives: Low and guarded support was seen for client incentives with extreme wariness of cash incentives and relatively better acceptability of in-kind incentives and vouchers. Opposition to cash transfers was linked to reluctance to be involved in cash dealings as well as its quick fix nature. Reluctance to be involved in cash transfers, pressure for fake claims by patients and local influentials, and pressure for 'cuts' by superior were some of the main cited concerns. Temptation for misappropriation by service provider was also pointed out. Furthermore, slow disbursement or disruption in release of cash incentives would create huge issues with patients and cast doubts on integrity of service provider.
Concerns were also related to effect of cash incentives on patent behavior. 'Making beggars of patients' by lowering the intrinsic value of health service and expectation of cash rewards for other services was a strong concern. Doubtful sustainability after withdrawal of cash incentive was an additional issue with example given of World Food Program assisted facilities where marked drop in volume of ANC visits are seen during periods of disruptions in cooking oil supply.

In contrast in-kind incentives were seen to be a better option as the visibility and risk of cash incentives and hence posed less chance of misappropriation by service providers and district mangers, lower risk of patient displeasure with service provider in case of disruptions and lower drop in patient volume after project discontinuity. Food rations, soap and well baby packages for newborns and children were some of the options proposed for in-kind incentives.

Vouchers were generally considered a safer option as it avoided cash transaction. However, most government staff was of the option that the advantage in terms of client volume would be to private facilities as these would be the main choice of patients provided with vouchers. Adequate competition could be provided by many government health facilities if these were re-equipped and staff provided with incentives and support. However, targeting of patient incentives either vouchers or CCTs was considered to be a politically contentious issues, with facility staff wanting only marginal role in targeting and verification mechanism (See Table 9.2).

District Based Awards: There was poor support for SWAP-like district based awards due to fear of poor trickle down to service delivery level.

8.2.3 Private Sector Prefers Vouchers and Provider Incentives over Contractual Arrangements with Government. Supplementary Financing by Government is More Attractive to Less Established Private Practitioners.

Amongst the private sector, vouchers and provider incentives were better received as opposed to health facility contracts with government sector.

Contracting: Hesitancy was seen for use of contracts due to a number of reasons. Lack of administrative capacity for performance based contracts was a commonly cited reason across

districts. Although some medical centers were offering services offering contractual services to private companies however such centers having organized management and record keeping were thought to be few. Contracts were also thought to be of limited financial interest to the private sector in general, being attractive mostly to charity hospitals and clinics or those private set-ups earning low profit margins. Dependence on government projects for earning was perceived to carry a risk as opposed to setting up an independent market based income. Even for such set-ups, the notion of government managed contract was associated with concerns while direct contracts with donors held appeal and had a prestige tag. Hesitancy of formal involvement with government was due to the fear of political interference in selection and monitoring, and delays in release of payments. Contracts were also thought to potentially result in unnecessary care provision and commercialism with little avenue for check and balance. Pre-requisites for contracting were fair selection, transparent and technically sound monitoring, and mechanism to control commercialism.

In contrast, purchasing of private services through vouchers was considered an attractive option for both private practitioners as well as patients. It was thought to provide of freedom of choice to patient in terms of health provider selection and at the same time would boost patient volume of private practitioner without compromising on their independence. Scrutiny of provider credentials was emphasized as well as need for community based referees, such as LHWs, with building in an incentivized amount for referee.

Provider incentives were also favorably received however these were felt to be relevant for private providers who as yet have to establish a robust private practice or for those who are government sector employees. Provider incentives should be calibrated to increase uptake of high risk patients and for off-duty hour services. As many of the private providers are also government employees, a string need was felt to improve staff incentivization in government services through a combination of both proper career pathways and provider incentives. Suggested incentive levels were 50% of amount usually charged in private facilities.

Demand inculcating mechanisms of CCT was received with wariness and even outright opposition and reservations were similar to that expressed by government health provider. Instead alternatives such as ration cards were proposed which could be signed and stamped.

8.2.4 District Stakeholders Require Stronger Administrative Powers for Implementation SWAP-like District Awards and Provider Incentives

In general district stakeholders agreed that result based financing would be very effective in bringing results. In grained culture of non-attendance, slim working hours and apathy and indifference to work was felt to paralyze the government sector in general and the health sector in particular which involved off their duties and peripheral outreach. This was a view shared by EDOs-Health, DCOs and Nazims. Preference was mainly for district based SWAP like awards followed by incentives for service providers.

District awards involving output based topping up of operational budget was thought to remove financial constraints, increase financial liberty and provide healthy competition between districts. However concerns related to the transparency of award disbursement and high potential for political interference as further discussed in Section 9.4. Secondly, while staffing was considered to be the main reason being poor MNCH services, weak administrative control over staff was felt to constrain ability to deliver on agreed district MNCH targets. Concentration of administrative powers in the province and political

interference from both provincial and district level over available powers was felt to dilute managerial control resulting in responsibility without authority. Ability to deliver on agreed district target was linked with strengthening the hand of district managers with provision of Class I powers as given to PPHI.

Provider incentives were also well received and thought to increase service delivery output through better staff retention, punctuality and motivation towards work. However this was thought to work only if political interference was removed. Sustainability of provider incentives was also an issue, with fear of a negative rebound on staff motivation after discontinuation of funding and resulting in a worsening scenario.

Contracting: There was general hostility amongst district health managers across all districts for contracting out of services to the private health sector. This was mainly related to fear of relinquishing funds and control to private sector. The notion of strategic planning and purchasing of health services was missing amongst EDO-Health with private sector mainly regarded as a competitor of services. Other concerns included lack of faith in quality of private sector services, presence of a limited private sector as well as potential for political interference in award of contracts. Reservations were therefore expressed with both management contracts as well as specific service delivery contracts. Management contracts were thought to be only applicable to selected non-functional government facilities in the remoter areas, while similarly NGO outlet in such areas should be confined to hard areas uncovered by government facilities.

Community Incentives: While value of community incentives was recognized in increasing uptake of services there was general wariness for use of such incentives. Reluctance was particularly high for CCTs with potential leakage and misuse at the end of service provider, political interference for patient disbursement and poor sustainability of client utilization being objections to CCT use. In-kind incentives were considered to be a more feasible and acceptable option. Use of vouchers was thought to be of little value as public sector services are already free of cost while advantage would be mainly to the private sector. Targeting of demand side incentives was thought to be particularly fraught with political interferences with district mangers reluctant to be involved in such undertaking (See Section 8.4).

8.2.5 Provincial Stakeholders Favor Provider Incentives Accompanied by Greater Provincial Oversight

Provincial health managers generally favored provider incentives, regarded demand side incentives with caution and were opposed to SWAP like district rewards.

District Awards: Poor performance of districts in MNCH was felt to be due to loss of provincial oversight and provision of district rewards were thereby considered to be of little utility in improvement of services.

Contracting: There was also poor acceptance of contracting with issues being similar to those raised by district managers. Entrenched perceptions were found of government as the direct provider of health services with contracting associated with loss of fund and control. Poor coordination between DOH and PPHI had further strengthened resistance to contracting. The private for profit market was regarded with skepticism as having low quality services and poorly transparent working. Although role of the large non-profit NGOs was acknowledged, collaborative partnering was acceptable with little acceptance of purchasing NGO services.

The notion of purchasing of private sector services was at most confined to use of private providers in government facilities or out-sourcing of non-functional government facilities to private organization.

Provider Incentives: There was greater acceptance of provider incentives with benefits of addressing staffing issues and decreasing private practice trend. Provision of staff incentives were linked to strict monitoring however there were strong concerns of sustaining staff performance after discontinuation of project funding. Institutionalization of provider incentives by government was poorly received being alien to public sector rules of business while shortage of funds was also cited but as a secondary factor.

Client Incentives: In general poor governance was felt to be an issue rather than low demand from clients with primary need felt for investment in the supply side. CCTs were disfavored due to high potential for leakages, poor transparency of targeting and disbursement and general uneasiness with the notion of cash for utilization of service. Sustainability of CCTs was also an issue with difficulties seen after discontinuity both in terms of a negative rebound on utilization of government services as well as increasing mistrust between patients and providers. Vouchers were considered a better option due to avoidance of cash dealings however the general opinion was that use of vouchers should be restricted to government health faculties.

Overall, output based measures although accepted to result in increase in MNCH output were perceived as supplementary short term measures that could be financed by donor funds. There was little willingness or concrete movement in the form of policy proposals to test out and institutionalize new measures for improving health sector delivery.

8.2.6 Overview of Stakeholder Preferences

Political acceptability overall is highest for provider incentives and vouchers, mixed for SWAP like district awards, and poor for CCTs and for contracting with private sector. Amongst clients and private sector there is high favoring of vouchers, however these are poorly received by the public sector where emphasis is largely on supply side mechanisms and within demand side mechanisms is on small scale incentivization linked to government facility usage. Provision of cash for service is generally disfavored by both public and private sector and poorly received by community.

District Based Awards: SWAP like arrangements are highly favored by district managers these face political resistance from province. District Based Awards can only work if funding is accompanied by increased administrative control and removal of political interference in staff postings and retention. While there is agreement on competitive nature of awards, transparency of awards is a matter of concern.

Table 8.1 Summary of Mechanism Preferences of Stakeholders

RBF Mechanisms	Provincial Managers	District Managers	Health Facility Staff	Private Sector	Community
District Award	X	XXX	X	N/ A	N/A
Contracting	X	X	X	XX	N/A
Provider Incentive	XXX	XXX	XXXX	XXX	N/A
CCT	X	X	X	X	X
Voucher	XX	XX	XX	XXXX	XXX

Scoring : Ranking is on a scale of 1-5 and in ascending order

Contracting: Purchasing of private sector services is poorly received by government stakeholders and draws mixed response from the private sector. Main issues include perceived loss of government control over funds and authority, small and untested private sector market and political interference and rent seeking pressures on contract award and monitoring. Greater resistance is seen to contracting out of government facilities for management by private sector while there is somewhat better acceptance of small scoped contracting of private sector facilities in defined areas. Amongst the private sector, service delivery contracts are of interest to those who do not have an established private practice while management contracts are of low interest, held to be problematic and better managed through contracting-in.

Provider incentives: There is high acceptance for provider incentives amongst all stakeholders subject to checks put in for transparent and effective management. Notable strengths included reduction in private practice, of government staff and increased attendance and work ownership. Concerns include false claiming of client volume, rent seeking pressures on staff and delayed disbursements. Furthermore, provider incentives were felt to be of little value unless accompanied by measures for adequate protection and security of female staff. Extension of provider incentives to private practitioners for service provision at government facilities had better acceptance in the public sector as compared to contracting of private sector facilities while private sector was open to such arrangements with greater benefit seen for practitioners who had less established private practices.

Community Incentives: Supply side factors such as availability of accessible, functional services and affordable services is the foremost hindrance to utilization reported by clients with low demand a lesser constraint. Vouchers are well favored by clients opening up access and freedom of choice for preferred provider. While also favored by private sector these are poorly received by public sector due to fear of skewing of patient volume towards private providers. There is low demand and general mistrust of cash for service amongst community while strong reservations are also present amongst both public and private provider linked to potential mismanagement and poor sustainability of client demand. Mistrust of routing of cash transactions through government sector is also a source of concern amongst both service providers and clients. More modest in-kind incentives are comparatively better favored having less potential for misuse and easier to wean off over time.

8.3 Stakeholder Preferences on Implementing Route & Targeting

8.3.1 Common Consensus for Third Party Implementation of Financial Incentives and its Verification

Overwhelmingly, all stakeholders across different health system tiers wanted a third party involvement for management of incentives with impartiality being the foremost and cross-cutting concern. Health system managers wanted to distance themselves from political pressures associated with financial rewards and while acknowledging a role in oversight were eager for major third party role in verification of outputs and disbursement of reward. Similarly, potential recipients of awards wanted financially transparent processes and technically sound checks prior to participation for financial awards.

Main advantage of third party for different mechanisms was i) *SWAP-like arrangements:* transparent selection of districts for competitive awards; ii) *contracting:* minimizing political bias in accreditation and selection of private provider, sound monitoring and avoidance of

rent seeking for disbursement, timely disbursements; iii) *provider incentives:* avoiding 'cuts' to superiors, prompt disbursements, greater faith and receptiveness to third party monitoring, openness of dialogue not possible with government superiors; iv) *community incentives:* less chance of pilferage and leakages, avoidance of favoritism in targeting, avoidance in breakdown in supply of in-kind incentives and vouchers.

Responses were mixed on use of existing versus separate record keeping systems with some stakeholders emphasizing use of separate record keeping to verify MNCH outputs with other supporting use of existing records with increased spot checks.

Perceptions of a neutral third party were diverse and included UN agencies, donor agencies, and reputed and technically sound organizations. District governments in addition favored broad based oversight committees having in addition to third party representation inclusion of DCO and health stakeholders such as EDO-Health, Medical Superintendent of DHQ/ Civil Hospital, PPHI and DPWOs. Provincial stakeholders similarly supported broad based committees having donor, government and UN representation however with locus of control based at provincial rather than at district level.

Community representation was disfavored as community representatives given the feudal context of NPPI districts would mostly involve local influential and legislators, introducing political bias and favoritism.

Table 8.2 Preferences for Implementation Route and Targeting Mechanisms

Districts	Client Targeting System	Implementation Route
Provincial Managers	All MNCH users	Provincial stakeholders + neutral third party
District Managers	All MNCH users	District stakeholders + neutral third party
Health Facility Staff	Some calibration at Union Councils level	Neutral third party
Private Sector	All MNCH users	Neutral third party
Clients	Protection to poor Involvement of village head	Neutral non-government party Village representative

8.3.2 Selective Targeting of Clients for Demand Based Incentives is Fraught with Risks as Compared to Universal Targeting in Demarcated Geographical Areas

It was generally felt that targeting should be based on poverty and physical access and most areas of the selected districts were felt to qualify under these categories. Differentiation of income and poverty levels of individual clients was felt to be a difficult and politically contentious exercise which could not be undertaken at health facility level and would require verification by other various means such as survey at village level, involvement of NGOs, inclusion of village elder and LHWs. Bait-ul-Mal systems were considered weak, vulnerable to political interference and having little capacity for verification and community targeting. The overwhelming response was that incentives if introduced should extend to all pregnant

mothers and children under five years utilizing government health facilities as only poor clients people were likely to utilize government services while affluent clients would continue to access private provider. Verification was also through to be administratively difficult and would expose health staff to undue pressures from clients. Verification at health facility level could at best check local residence through scrutiny of Union Council registration number.

Little information was received on particular religious or ethnic minorities particularly likely to benefit from targeting with poverty the main factor and cross-cutting across all groups. However certain tribal groups in upper Sindh were considered to be more resistant to maternal health care seeking and in particular need of demand side incentives.

In terms of services, maternal care was the area most in need of targeting (lack of awareness and cultural barriers) followed by prompt attention for newborn and child illnesses (lack of awareness).

The emerging picture was that there should be geographical demarcation of remote and lower income areas and all pregnant mother and children under five should be targeted within these areas. Given the context of NPPI districts, it was felt that this would involve most areas of selected districts.

8.4 Section Summary

- The most preferred incentivized mechanism on the supply side is provision of incentives to service provider while in-kind incentives for clients and limited use of vouchers are preferred mechanisms on the demand side.
- Provider incentives of up to 50% of fee charged in comparable private sector facilities was acceptable to health care providers, topped onto the basic salary package and involving prompt disbursement directly into bank accounts. Calibration by distance and regular versus non-regular timings, and opening of reward to both medical and paramedic staff were further suggestions put forward by a cross-section of health care providers and health care managers.
- There is little concept of purchasing and stewardship role of government amongst public sector stakeholders with entrenched political resistance for purchasing of private sector services.
- Amongst public-private partnership arrangements, both public and private sector show a common acceptance of provider incentives to private practitioners, vouchers are favored by private sector and have mixed reception in government sector, while there is extreme wariness from both sides regarding contractual arrangements.
- There is overwhelming preference for third party management of financial rewards with mistrust of routing of rewards through government system commonly shared by government managers, health service providers as well as potential recipients.
- Stakeholders concur that client targeting should be based on poverty and remoteness with most areas of the NPPI districts qualifying under these criteria. Distribution should include all pregnant mothers and children under 5 years as selective targeting of families within demarcated catchment is felt to be administratively difficult and fraught with political interference.

Section 9. COST PACKAGES AND TARGETING

9.0 Introduction

In this section, we seek to make some form of estimation of a cost package for maternal and child health care, and how much of the cost people are actually willing to pay. The estimated cost packages can be used to decide the level of incentives that can be given to beneficiaries to make use of maternal and child health care services. Estimates for provider incentives are also computed based on fee related expenditures of clients. A review of existing targeting systems is also provided and suggestions made for targeting mechanisms for NPPI districts.

9.1 Methods

In our expenditure analysis, we have examined the costs of the following five services:

i) Antenatal Care (ANC)
ii) Normal Delivery Procedures
iii) Caesarean Sections (C-Sections)
iv) Child Illness Treatment

For each of these five services, we have separately estimated the patient expenditure for these services at public and private facilities as well as provided a mean cost computation. We have divided the costs into medical costs and transport costs, medical costs being an aggregation of doctors' fees, medicines, tests, investigations and other services. Along with the costs, we have also calculated how much people are, on average, willing to pay for each service.

Our cost package estimation and analysis is three-tiered. The top tier is an estimation of a cost package for all the ten districts. The second tier is an estimation of a cost package for each of the ten districts, and some analysis of the variations between the districts. The third tier is a brief analysis of variations in transport costs within districts between locations close to and distant from facilities.

In order to work out the costs people incur on maternal care and child care in the ten low-performing districts, we made use of the results of two surveys: i) NPPI baseline household survey as well as ii) qualitative information collected from clients through FGDs conducted at by NPPI Financial Feasibility Study. In addition data on willingness to pay (WTP) for each of these services was also collected and analyzed by NPPI Financial Feasibility Study. Mean WTP for each service is presented in this chapter and provides the basis for estimating extent of subsidy to be applied on client expenditure for development of vouchers. **(***More detailed methodology given in Annex 9)*

9.2 Overview of Client Expenditure on MNCH Services

The table 9.1 and 9.2 gives estimations of the client expenditure on maternal and child care and transport cost for the utilization of these services respectively, averaged across the ten districts that were surveyed.

Patient Expenditure: On average client expenditure for ANC is Rs.785, for normal delivery is Rs.2737, for C- section is Rs. 16868 and for child illness is Rs.643. A significant amount of expenditure is incurred by clients at both public and private sector facilities. Child illness treatment is, on average the cheapest of the five services with C-Sections, being the most the

most expensive service. C-section delivery expenditure is, on average, at least five times as much as normal delivery procedures.

Client expenditure at public facilities although be incurred by patients is lower than that incurred at private health care facilities. The difference is most pronounced in the case of child illnesses where private treatment is about five times the client expenditure at public treatment. Average transport costs seem to also be lower to public facilities than to private facilities, although only slightly lower, with the exception of C-section transport cost, which is about the same in both private and public facilities.

Willingness to Pay: We notice that the amount respondents are willing to pay is significantly less than the actual client expenditure they are incurring. For private facility treatment, the amount people are willing to pay is usually between 25 and 30% of the actual client expenditure. In the case of C-sections, people are willing to pay the smallest percentage share, but this is primarily because of the substantially higher costs of C-Sections, as they are willing to pay the largest amount for C-sections, in terms of amount. In the case of public facility treatment, people are still only willing to pay under 50% of the share of the client expenditure. The only exception is child illness treatment at public facilities where the amount people are willing to pay equals and exceeds the average cost of treatment. Therefore, we see in both private and public facility treatment people are unwilling to cover most of the cost of maternal and child care.

9.2.1 Antenatal care (ANC)

Public Facilities: Antenatal care expenditure by clients at public facilities mostly falls between Rs.460 - 545. The lowest antenatal expenditure in public facilities is in Ghotki at Rs.889, while highest expenditure is seen in Qambar at Rs.2090, with the rest falling in between. (For details see Annex 10)

Transport Costs: Transport costs for antenatal care were usually among the lower end transport costs in each district. This would be because, if people were availing antenatal care facilities, they would probably only make use of those that were within a reasonably close proximity. (For details see Annex 10)

Facility Based vs. Periphery: Aside from a district by district analysis, we can also look at intra district analysis from five districts in which transport costs estimated by respondents at facilities are compared to transport costs estimated by respondents at peripheral locations. Transport costs vary considerably between facility based estimations and periphery-based estimations, in inconsistent ways. For example, in Badin, the periphery-based estimation is significantly higher than the facility-based estimation of transport costs. On the other hand, in Kashmore they are relatively similar, and then in Nawabshah the facility-based estimation of transport cost is higher than that of the periphery.

9.2.2 Delivery

Private Facilities: Client expenditures on normal delivery in private facilities tend to fall between Rs.3000 and Rs.4000, with a couple of exceptions. Umarkot falls at the lowest end of the range, with an expenditure of Rs.2659, while Qambar has the highest expenditure on normal delivery procedures i.e. Rs. 4444. (For details see Annex 10)

***Public Facilities*:** Public facility expenditure for normal deliveries mostly falls within a range from Rs.2000 and Rs.3000 with some exceptional outliers. The highest client expenditure is in Tharparkar at Rs.4243, while the lowest is in Kashmore at a mere Rs.1500. In almost all the places, public facility delivery expenditure are lower than private facility delivery expenditure, with the exceptions of Umarkot, Larkana and Tharparkar. (For details see Annex 10)

Transport Costs: Transport costs for normal delivery procedures tended to be among the higher transport costs from each district. This could be because often taxis were required to transport women for delivery procedures, and also, often medical facilities in close proximity, would be too small to conduct delivery procedures. Hence, normal delivery procedures tend to generate higher transport costs, with a similar level of variation seen in transport costs to both public and private facilities, except in Badin where the transport cost to the public facility was as low as Rs.30. (For details see Annex 10)

Facility Based vs. Periphery: When looking at the intra district analysis to compare facility-based results to results from peripheral locations, we note that there is a consistent trend, with transport costs for normal delivery being significantly higher in peripheral locations as opposed to facility-based ones. The only exception to this is in Tharparkar, where transport costs at the peripheral location are substantially lower.

Table 9.1 Client Expenditure by Type of Service

Services	Private Facility	Public Facility	Mean expenditure
	Expenditure (Rs)	Expenditure (Rs)	
ANC	1068	503	786
Normal Delivery	3448	2026	2737
C-Section	21350	12385	16868
Child Illness	1015	271	643

9.2.3 C-Section

Private Facilities: The client expenditure on C-section is significantly higher than the expenditure in any other service. Client C-section expenditure at private facilities mostly fall between Rs.15000 and Rs.25000 with some minimum and maximum numbers falling above and below this Rs. 1000 range. Jamshoro falls at the lowest end of the range, with a minimum of Rs.13500, while Nawabshah has the highest figure at C-section procedures estimated at Rs.28250. The rest fall in between. (For details see Annex 10)

Public Facilities: Client expenditure on C-Sections at public facilities is lower than at private facilities. Most C-sections fall within the expenditure range of Rs.9000 and Rs.15000 with some exceptions. The estimated client expenditure for a Caesarean section is the cheapest in Ghotki where it is estimated at Rs.8750. The estimated client expenditure is highest in Shikarpur where it is estimated at Rs.20000. (For details see Annex 10)

Transport Costs: Transport costs for C-sections tend to be the highest costs in each district, as high if not higher than the cost of normal delivery procedures. The reasons for this would

probably be the same as those for the higher transport costs of normal delivery procedures, with the added issue that facilities that carry out Caesarean sections would possibly be even less abundant than those that simply carry out regular delivery services. A similar variation of transport costs is seen in both private and public facilities, although there is far less information on transport costs to public facilities. (For details see Annex 10)

Table 9.3 Client Expenditure on Transport

Services	Private Facility	Public Facility	Mean Cost
	Transport (Rs)	Transport (Rs)	
ANC	315	175	245
Normal Delivery	700	545	623
C-Section	770	775	773
Child Illness	360	280	320

9.2.4 Child Illnesses

Private Facilities: There are significant variations in client expenditure for child illness treatment between districts. In seven of the ten districts the client expenditure of treating child illnesses falls between Rs.400 and Rs.800. However, in the remaining three districts, the client expenditures are well above Rs.1000, with the expenditure in two of these three, namely Tharparkar and Kashmore, being as high as Rs.2175 and Rs.2125, respectively. The lowest expenditure were in Umarkot and Ghotki, at Rs.415 and Rs.430, respectively. (For details see Annex 10)

Public Facilities: The treatment of child illnesses at public facilities tends to be quite similar across the ten districts, and is significantly cheaper than at private facilities, falling within a range of Rs.250 to Rs.350, with just a couple of exceptions. The lowest client expenditure for treating child illnesses at public facilities are from Jamshoro with a client expenditure of Rs.234. The highest costs are in Kashmore at Rs.393. (For details see Annex 10)

Transport Costs: Transport costs for treatment of child illnesses tend to be either at the same level as or higher than the cost of ante natal care. This is probably because, for mild illnesses families are probably only willing to take the children to a facility if it is very close by, and will only be willing to consider longer distances and higher transport costs, if the illness is very severe. Therefore the transport costs tend to be at the same level as ante natal care costs, with severe illnesses pushing them higher in some places. The same trend is evident in both private and public facilities. (For details see Annex 10)

Facility Based vs. Periphery: When comparing facility-based results to periphery-based results in districts, we notice that the transport costs give us no discernable trend. In some districts, the peripheral transports costs are higher than the facility-based transport costs. In some places they are around the same, and in some places they are lower.

9.3 Willingness to Pay Inter-District and Intra-District Analysis

In this section we will examine how families' willingness to pay for different services varies from district to district. *(*For details see Annexes 10*)*

9.3.1 Antenatal care

In most of the districts people are willing to pay between Rs.200 and Rs.450 for antenatal care, definitely less than they are willing to pay for any of the other services discussed in this study (For details see Annex 10). Two districts though stand out on either side, in terms of their willingness to pay for antenatal care. The lowest result came from Tharparkar where people said they weren't willing to pay any money for ante natal care. On the other hand, respondents from Ghotki were willing to pay around Rs. 700 for ante natal care.

9.3.2 Normal Delivery

The willingness to pay results for normal delivery procedures are obviously higher than the willingness to pay results for antenatal care. However, the amount people are willing to pay makes up only a small percentage of the overall cost of the normal delivery procedure in the districts, often little more than 25% of the cost, because people tend to prefer having home deliveries instead of institutional deliveries anyhow, which are far cheaper. Therefore, people are willing to pay the amount a home delivery costs, but usually little more than that. (For details see Annex 10)The responses from each district fall mostly within a range from Rs.500 to Rs.1250 with the lowest result coming from Tharparkar where the amount respondents are willing to pay lies within the range Rs.400-550 and the highest result coming from Umarkot where the amount is around Rs.1625.

Badin, however, is an important exception. In the survey in Kadhan in Badin, the response to the willingness to pay question was Rs. 500, while the response to the willingness to pay question in Rajo Khanani was Rs.5000-6000. This wide variation makes it very difficult to decide an overall willingness-to-pay number or range for Badin, which is why we have left its results separate from the ranges discussed above.

9.3.3 C-Section

The amount respondents from the different districts are willing to pay for Caesarean sections is by far the highest, since it is understood that C-sections are costly, complex operations. However, the amount people are willing to pay is still only a small percentage of the amount C-sections often actually cost, because they are so expensive and there is only so much money people are willing and able to take out for such an operation. Respondents are usually willing to pay between Rs.2800 and Rs.5000 for C-sections (For details see Annex 10). Respondents from Umarkot seem to be willing to pay the most for C-sections, as they are willing to pay up to Rs. 6000. On the other hand, the response from Ghotki was the lowest: between Rs.1500 and Rs.2750.

9.3.4 Child Illnesses

The amount people are willing to pay for the treatment of child illnesses is below Rs. 1000 in all ten places, with most responses falling between Rs.150 and Rs.800. (For details see Annex 10).This shows the people are really only willing to cover the costs of treating mild illnesses,

and are not willing or able to cover the costs of treating severe illnesses, since the cost of treating severe illnesses is usually above Rs.1000. The lowest response is from Ghotki where the amount respondents are willing to pay is around Rs.150, while the highest response is from Kashmore, where respondents are willing to pay between Rs.550 and Rs.850 for the treatment of child illnesses.

9.4 Cost Packages and Provider Incentive

Cost Packages for vouchers: Cost packages are proposed on client's willingness to pay (WTP) on MNCH services, taking both the lower range and the upper range of WTP figures. In ANC the cost package for voucher based on lower range of WTP is Rs.586 while it is Rs.336 based on upper range of WTP. For normal delivery the cost package based on lower range of WTP is Rs.1942 and Rs.1362 based on upper range of WTP. Moreover, cost package for C- section is Rs.13163 and Rs.12463 based on lower and upper ranges of WTP respectively. In child illness the proposed voucher based on lower range of WTP is Rs.413 while its Rs.153 based on upper range of WTP. Although client expenditure data was not available for post natal care, its approximate cost for voucher is taken as that of ANC visits. On the other hand voucher for normal delivery based on client lower range of WTP is Rs. 1942 and Rs. 1362 as per upper range of WTP. Vouchers for C- section and child illness based on WTP are also proposed in Table 9.3. (For details see annex 11)

Table 9.4: Cost Packages for Vouchers based on Willingness to Pay

Service	Willingness to Pay (Rs)	Cost package based on Lower Range of WTP (Rs)	Cost Package based on Upper Range of WTP (Rs)
ANC	200-450	586	336
Normal Delivery	795-1375	1942	1362
C – Section	3705-4405	13163	12463
Child illness	230-490	413	153

Provider Incentive: Provider incentives are proposed based on 100% and 50% subsidies on average consultation fees in private sector. The provider incentive for ANC based on 100% subsidy is Rs.94 while it's Rs.47 on 50% subsidy. On the other hand the proposed provider incentive for normal delivery is Rs.1908 and Rs.954 based on 100% and 50% subsidies respectively. Provider incentive for child illness is Rs.275 on 100% subsidy and Rs.138 on 50% subsidy. District wise breakups for provider incentives are provided in annex 12.

9.5 Review of Existing Targeting Mechanisms

Presently Zakat and Bait-ul-Mal are the two schemes through which some kind of social protection is channelized. However targeting mechanisms of both these schemes do not fulfill the criteria of inclusivity, transparency and verifiability.

Zakat which is a larger scheme comes under Religious Affairs Ministry and awards are made on the basis of religious tenets. It excludes Non-Muslims from its purview and is geared

primarily towards the destitute and invalid segment of the population. Selection of beneficiaries who qualify under religious grounds is made through local Zakat committees. A certain amount of Zakat money is provided to hospitals however beneficiary patients are referred to Zakat committee for verification. Verification of income and destitution is basically judgemental. Baitul Maal is a smaller scheme but involves broader targeting than Zakat, being non-discriminatory on religious grounds. In health it is geared exclusively towards life threatening illnesses. Individuals have to directly apply for Bait-ul mal to the district level office based on doctor's certification of illness and thereafter a means test is supposedly carried out on for selection of beneficiary. Verification methods used by Baitul Mal and Zakat are unclear and lack sufficient rigor and transparency. Targeting does include the notion of a universe (population census) for disbursement of awards so there is lack of means to identify who are the needy and what proportion are being targeted.

The Benazir Income Support Program (BISP) is still in the process of devising a targeting system however the key strong point is that the concept of a population universe has been accepted for targeting. The proposed targeting system at present relies exclusively on the NADRA database. Given that the program intends to target the poorest population, there is enough evidence to suggest the issuance of NADRA ID cards amongst the poorest segments of the population is the lowest. The Program is in the process of developing a scorecard system to target the poorest segments of the population. If developed it will be the most robust system of targeting practiced and would align with successful schemes in a number of other countries.

9.6 Section Summary

Client Expenditure by Different MNCH Services:

- In the overall client expenditure covering all ten districts, we note that in all the services, client expenditure on treatment at public facilities is significantly less than treatment at private facilities. In the case of child illness treatment, which is the cheapest form of treatment in the package, private treatment is as much as five times the expenditure of public treatment.
- We also note that the amount people are willing to pay is significantly less than the actual amounts they are incurring, usually between 25 and 30% of the client expenditure at private facilities, and between 30 and 50% of the client expenditure at public facilities. Therefore, we see in both types of facilities, people are unwilling to cover most of the expenditure on maternal and child care.
- Client expenditure on normal delivery procedures is on average Rs.2026 at public facilities and Rs.3448 at private facilities.
- Client expenditure on C-Sections, on average is the highest, with an average expenditure of over Rs.12000 in public facilities and over Rs.20, 000 in private facilities.

Inter-district Variations on client expenditures:

- In the inter district analysis, we note that there is substantial variation in expenditure between districts for each of the services. For Antenatal care and normal delivery procedures there is less expensive vouchers However, there are significant outliers in both cases. The most significant variation in the client expenditure is seen in treating child illnesses. C-section also shows a wider range of expenditure.

Willingness to Pay:

- In the case of the amount people are willing to pay, we note that people are willing to pay only a small amount for normal delivery procedures as they usually opt for the cheaper procedure of home deliveries anyhow. In the case of child illness treatment, we see in both cases, across all the districts, people are only willing or able to pay for the treatment of minor complications and mild illnesses.

Proposed cost package for services:

- Based on client lower and upper range of WTP the proposed approximate cost package for the ANC is Rs.600 and Rs.300, for normal delivery is Rs.1950 and Rs.1350, for C – section is Rs.13000 and Rs.12500 and for child illnesses is Rs.400 and Rs.150 respectively.

Proposed cost package for transports:

- Transport costs are lowest for antenatal care while transport costs for delivery procedures tend to be the highest, especially C-Sections. Transportation vouchers are needed in all districts to offset heavy cost of transport for deliveries and EmONC. Mean voucher value of Rs.700 is required for delivery and EmONC with a range of Rs.400 in districts with higher physical access and as much as Rs.1100 in districts with poorer access. Transport vouchers while offsetting the expense burden on clients of private transport can also serve to pull in private transport to remoter areas.

Provider incentive:

- Provider incentive for ANC is lower than normal delivery. Provider incentive for ANC based on 100% and 50% subsidies is Rs.95 and Rs.50 respectively, while for normal delivery its Rs.1900 and Rs.950 respectively.

Targeting:

- Targeting for vouchers can be piggybacked upon the Benazir Income Support Scheme. This scheme is well designed for poverty based targeting at the community level but is yet to be implemented. Alternatively universal targeting of clients in identified geographical areas can be done based on pre-selection of geographical areas in NPPI districts based on poverty and poor access. Presence of a specialized agency will be required for targeting as existing capacity is low in Bait-ul-Mal and other related government set-ups.

Section 10. LESSONS FROM OTHER PROGRAMS IN PAKISTAN

10.0 Introduction

Section 10 outlines key lessons learnt from incentivized health programs in Pakistan. It reviews the extent and scope of implementation of individual projects, key supply or demand side areas targeted, effect in terms of service output and nature of incentive disbursement systems used. Key lessons learnt are then highlighted for application in NPPI districts.

10.1 World Food Program in improving and up taking of Primary Health Care through the Government facilities

Focus: World Food Program (WFP) provides cooking oil to pregnant and lactating mothers as a demand inducing incentive for increasing the utilization of antenatal and post natal care. The program has been in place since 1994 and operates through 452 government first level care facilities. 4 tins of cooking oil are provide over the course of a pregnancy with two tins linked during prenatal care and two given during the pos-natal and lactation period by trained LHVs. The purpose is an increase in TT vaccinations and ANC coverage, PNC coverage, early childhood vaccination, and awareness on family planning, breastfeeding and weaning.

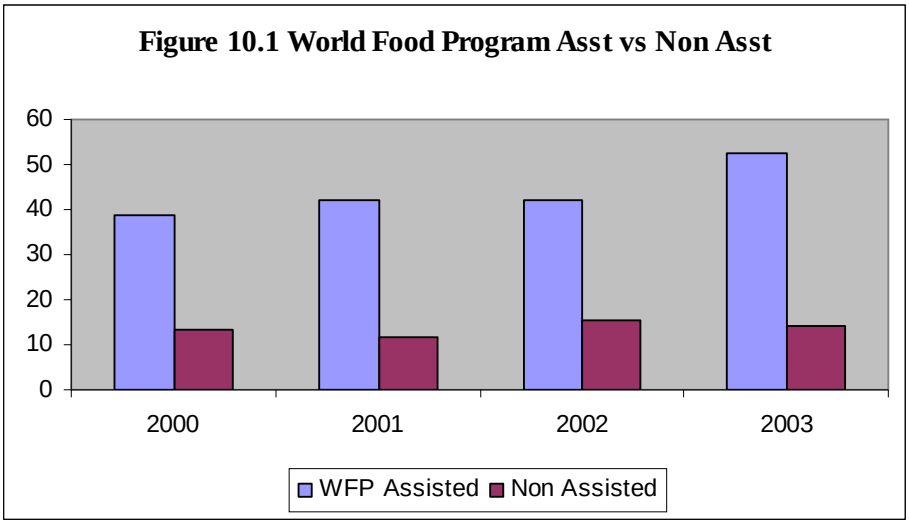
Implementation Modalities: WFP is implemented as a vertical program involving both the Health Department and WFP office. Program implementation is through the provincial government which provides focal staff at provincial level for programming and monitoring, bears the transportation costs of edible oil from Karachi port to health centers, and disburses oil through its health facilities using existing LHVs and female doctors posted at government outlets. The World Food Program provides commodity, training and oversight. Trainings are targeted at the LHVs to provide services to the pregnant and lactating women and motivate them for further visits. Provision of oil is subject to referral slip from LHWs and CNIC card. Monitoring relies on facility based information and there is lack of an independent verification system at the community level. Moreover, data recorded is in terms of absolute numbers while there is no information on eligible women in the catchment and the proportion of them covered for services.

Targeting: All pregnant women at selected health facilities are targeted subject to verification by LHWs. Selected health facilities are those which have female health and are selected in consultation with Health Department.

Performance Output: WFP evaluation has shown that there was a significant increase in registration of pregnant women with WFP assisted centers showing 497% increase versus 30% increase in non-assisted centers and is corroborated by program records (SuRF 2005). Yearly output of WFP although higher than that of non-assisted facilities fluctuates in accordance with availability of cooking oil supplies (Figure 10.1). However patient attendance progressively drops with progression of pregnancy resulting in low attendance in the advanced stages of pregnancy and in the postnatal period (Figure 10.1). Evaluation studies indicate low awareness levels amongst mothers of health messages and important pregnancy and post-partum milestones. This is reported to be due to primary focus of health

providers on management of oil disbursement as well as need for further training of health providers.

Figure 10.1 World Food Program Asst vs Non Asst



Constraints: Frequent 'pipeline breaks' involving disruptions in supply of cooking oil have resulted in significant drops in patient attendance during periods of non-supply. This has prevented provision of sufficient time to build up client demand and weaning off of food incentives is thereby difficult. Targeting of the peri-natal period is poor as there are no incentives linked with institutional deliveries while sufficient demand induction has not been built for the late pre-natal and postnatal visits. Another drawback of the program is reliance mainly on facility based data with lack of verification mechanism to see trickle down effects at community level and benefits to the poorer segments.

10.2 Population Welfare Program

Focus: The Ministry of Population Welfare through its provincial Population Welfare Programs provides cash incentives to clients, health service provider and community based referee to increase the utilization of permanent contraception including tubal ligation and vasectomy. Cash based motivation for behavioral change was introduced in the 1980s and is provided through Reproductive Health Service (RHS) Centers which are pre-identified government facilities equipped for this purpose. These include a mix of RHS-A centers run directly by the Population Welfare Program as well as RHS-B centers set up in those private and semi-government hospitals that have a potential clientele and capacity for carrying out tubal ligation and vasectomy procedures.

Implementation Modalities: Cash awards are of relatively low value with total incentive package per case amounting to Rs1500 which includes incentive of Rs250 for client, Rs 150 for person who referred, and Rs 700 for service provider. Rates are fixed and have not been subject to annual revision since several years. Financial routing involves disbursement of funds from province directly to RHS account. Budgeting of client incentive however is not linked to performance targets or reviews of existing demand and involves an incremental annual adjustment for inflation. Releases are subject to delays with usual lag time of three to four months before release of payment and are due to disbursement of all Population Welfare Funds from development budget while shift to operational budget is yet to be sanctioned.

Monitoring involves submission of RHS service output records to the province as well as randomly verification by province based on list of patients provided by RHS centres.

Performance Output: Contraceptive surgical methods provide a relatively high share of total couple years of protection (29%) followed by IUDs (46%). Reproductive health centers are a major source of contraception due primarily to provision of permanent methods and provide up to 28% of couple years of protection while Family Welfare Centers providing modern methods provide 33% of CYP with rest provided by outreach programs. Feedback from program managers shows that volume based incentives are an attractive feature for service providers however level of supplementary earning varies widely across districts with earning of between 50,000-100,000 in busy areas of Karachi and Rs.10, 000-15000 in the more rural postings (GRBI 2006).

Figure 10.2: Couple Years of Protection by Methods

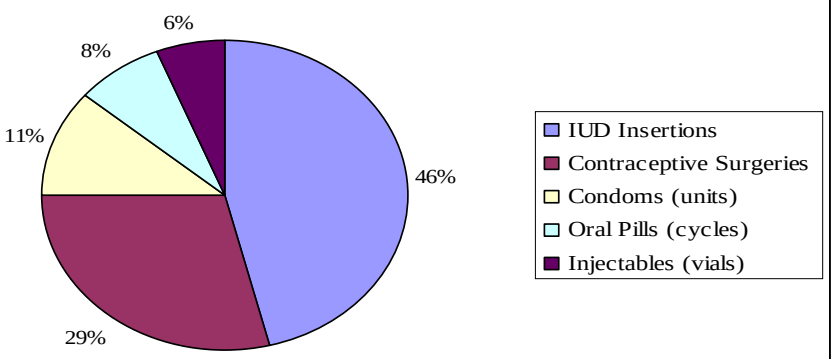
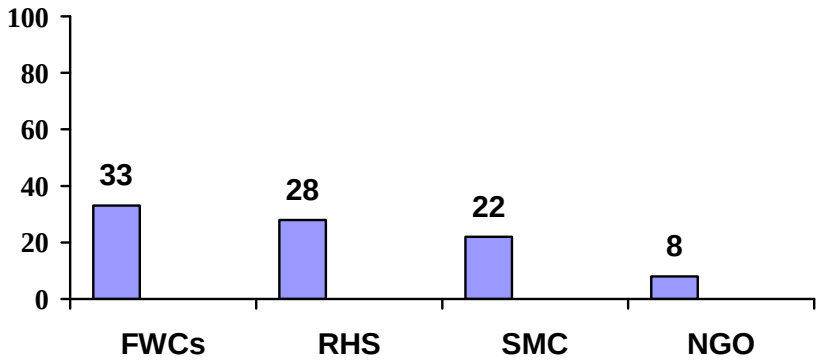


Figure 10.3: Performance by Service Outlet
(Couples Years of Protection)



Constraints: The Population Welfare Program is an old and established example of cash based incentives to clients and providers and also involves purchasing of private sector services. However, after introduction of cash incentive there has been no attempt for revision of rate or expansion of incentive to other methods such as IUCDs or gradually weaning clients off from cash based awards after building of sufficient demand.

10.3 People's Primary Health Care Initiative (PPHI)

Focus: The People's Primary Health Initiative makes use of management contracts and incentivized salary packages to female staff for improving health facility performance. It was initiated in response to poor functioning of BHUs across Pakistan and involves contracting the management of BHUs for improved service delivery. Out-sourcing of BHUs has been done to the National Rural Support Program (NRSP) and the initiative is administratively housed under and financially assisted by the Federal Ministry of Industries. It is an example of *contracting-in* involving transfer of management function and its accompanying budget on formal contractual terms from the Ministry of Health to the Ministry of Industries. In Sindh, PPHI was started in 2008 and has been extended in a phase wise manner to 17 out of the 21 districts and at present covers 558 out of the total 859 BHUs in the province. Key management interventions include repair and maintenance of BHUs, provision of equipment and furniture, installation of telephones, ensuring of full staff strength, twice weekly visits by female doctor, provision of basic laboratory facilities, and conduction of community health education sessions.

Implementation Modalities: PPHI has involved single source contracting to the NRSP across all the four provinces. The written contract between the PPHI and the Health Department is input based and essentially focuses on provision of funds and administrative control for management as opposed to performance based targets. Under the terms of contract, budgets for BHUs in each district have been transferred to PPHI with provision to re-allocate fund across line items for flexible and innovate management. These has been primarily used to increase staff salaries in general as well as provide higher packages for remote postings and are accompanied by Class I administrative powers over staffing as well as strict monitoring. Management control however is restricted to the health facility level and there has been no transfer of power over vertical outreach programs. Monitoring is based on the existing HMIS system and supplemented with a high level of spot checks through telephone calls and field visits.

Performance Output: The PPHI recently started in Sindh in 2008, is undergoing phased expansion and is still in an initial stage for result assessment. However data from ten districts included in Phase I of PPHI implementation shows that it has been successful in improving staff attendance with approximately two fold increase in attendance of doctors after PPHI intervention (Figure 10.4). It has also been successful in operationalisation of 10 illegally occupied BHUs and approval of operational budget of 98 non-functional BHUs in these districts. In terms of service output an increase in female OPD is reported in contracted BHUs and is related to improved staff attendance of female paramedics and additionally built in twice weekly visits of lady doctor. However there was a baseline assessment for comparison. A definitive increase in total OPD has been seen as is more pronounced in some districts versus others. (Figure10.5).

Figure 10.4: Attendance of Doctors in PPHI versus Non – PPHI Sites

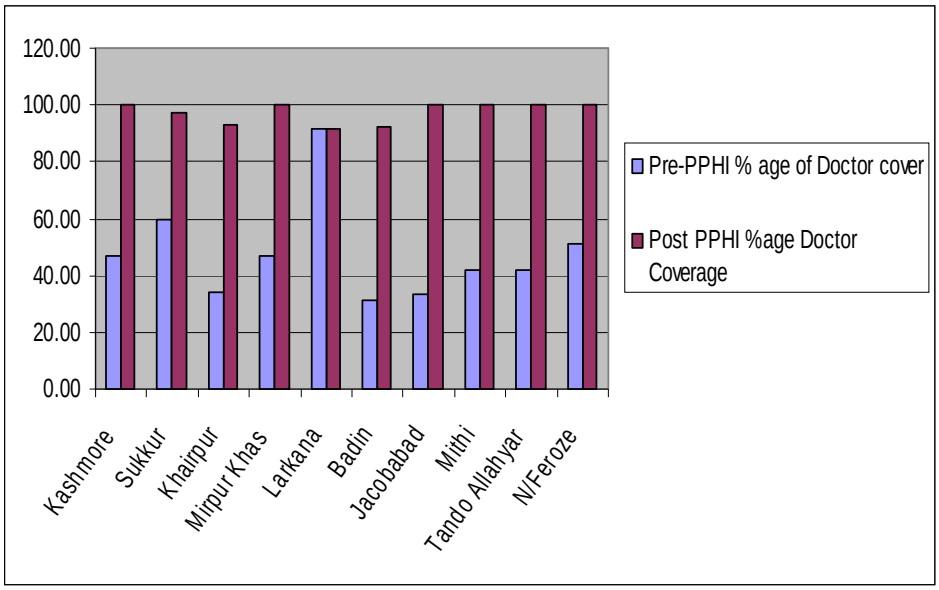
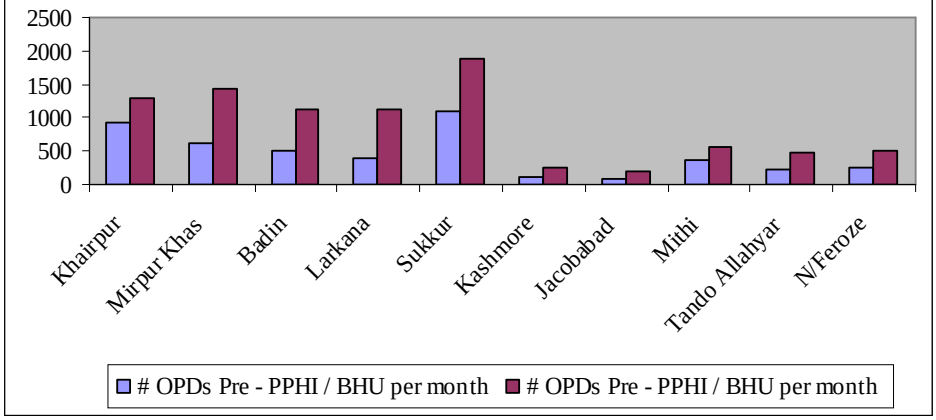


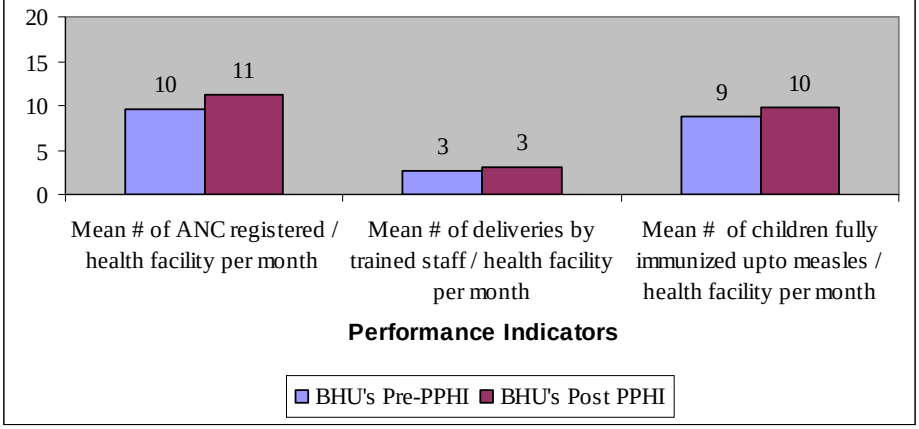
Figure 10.5 OPD Turnover : Pre PPHI & Post PPHI



A comprehensive picture on promotive and preventive services such as deliveries, maternal care visits, immunization and growth monitoring are as yet not available from Sindh however data from case study of district Badin shows that there has been only marginal improvement in prenatal, delivery and child immunization services at health care facilities (Figure 10.6). This is corroborated by evidence from Rahim Yar Khan evaluation which shows only small scale improvement in volume of pre-natal, deliveries and family planning visits despite high BHU utilization for curative care (World Bank 2006). On site assessment of Sindh PPHI

shows that there is comparatively low emphasis by PPHI management on preventive and promotive care indicators as opposed to curative care while BHU linkage with vertical outreach programs has also weakened as administrative authority of vertical outreach programs still lies with EDO-Health Office.

Figure 10.6: BHU's Pre PPHI vs BHU's Post PPHI



***Hindrances*:** While PPHI has potential for increasing MNCH service delivery outputs a number of factors impede advances in this area. Obtaining sanctioned release of BHU budget and ensuring attendance of government staff has been fraught with political tensions and turf politics between the two government ministries which raises serious concerns over viability of management contracts and leads to sub-optimal coordination for implementation of integrated services. Moreover lack of specification of contractual performance targets as well as poor orientation of civil service managers in PPHI has led to low attention to MNCH care. A fair trail of the PPHI initiative involving rigorous baseline and end project evaluation, a stronger reporting and coordination linkage between PPHI, Health Department and donor agencies involved in PHC and MNCH, and a future shift to performance based contract having preventive care indicators are measures needed for enhancing PPHI potential in the MNCH area

10.4 Tawana Pakistan Project

Focus: Meals for school children were used as a demand inducing mechanism by Tawana Pakistan Program to increase enrollment among primary school girls and reduce malnutrition in the rural areas of the poorer districts of Pakistan. Tawana Pakistan was a project of the Ministry of Social Welfare and Special Education, implemented across Pakistan for a two year period at a cost of 3.6 billion. Freshly cooked meals were provided to 417,000 girls enrolled in government primary schools in 29 districts of Pakistan. Meal cost of Rs7 per child per day was allotted to government primary girls schools with the fund jointly managed by teachers and community while meal preparation and feeding was managed by community.

Targeting: Targeting was by gender and age group, and involved selection of all government primary girls schools in program districts and provision of meal to all students. Calibration by income levels was not done as government schools were felt to reach out to the poor while community mobilization through NGOs was built in to ensure participation of the poorer groups amongst the poor.

Implementation Modalities: The implementation mechanism comprised of three key features: i) use of NGOs for mobilizing and empowering communities to manage school feeding and oversee teacher's attendance; ii) use of Bait-ul-mal for routing of funds and program monitoring; iii) use of district stakeholder committees for oversight. Financing route involved direct transfer of funds on a per child basis from the Pakistan Bait-ul-Mal to the district oversight committee followed by transfer to bank or post office accounts of individual schools on a quarterly basis. Fund management at the local level was jointly by mothers' committee and teachers. Monitoring at the field level involved maintaining a universal data set on each child registered with technical assistance to communities provided by NGOs while overall program monitoring was provided by Bait-ul-Mal.

Performance Output: Incentivized feeding was seen to result in an overall 40% enrollment increase across all provinces, AJK and FANA (Figure 10.6). Enrollment increase was primarily associated with direct targeting of the girl child through provision of a school meal as opposed to targeting directed at family members. Another effect was an increase in the nutritional knowledge of women in the community by 30% as well as some reduction in underweight and wasted children however (Figure 10.7). However there is lack of data as to whether the program was able to target the poorest populations in terms of school enrollment and /or improvement in nutritional status. A secondary benefit of this incentivized program was empowerment of mothers with the program showing that community women are capable of managing small scale local development programs (Tawana Pakistan 2006).

Figure 10.7 Tawana Project

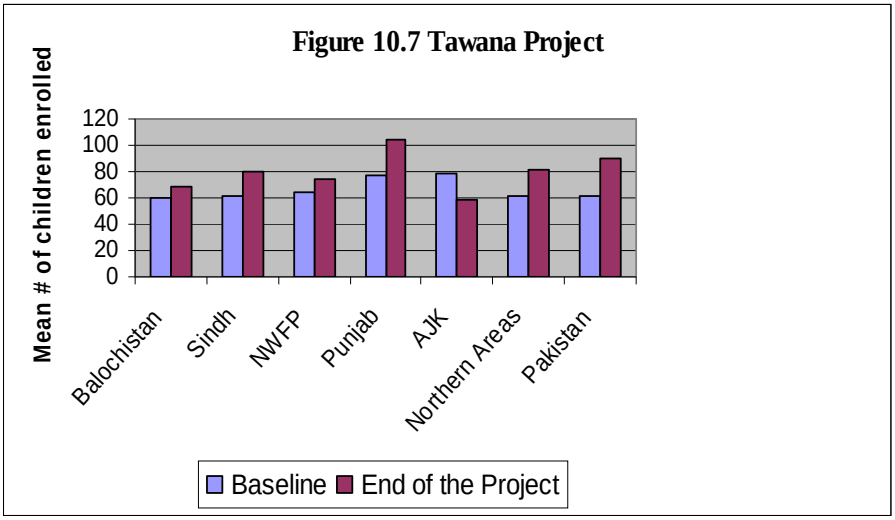
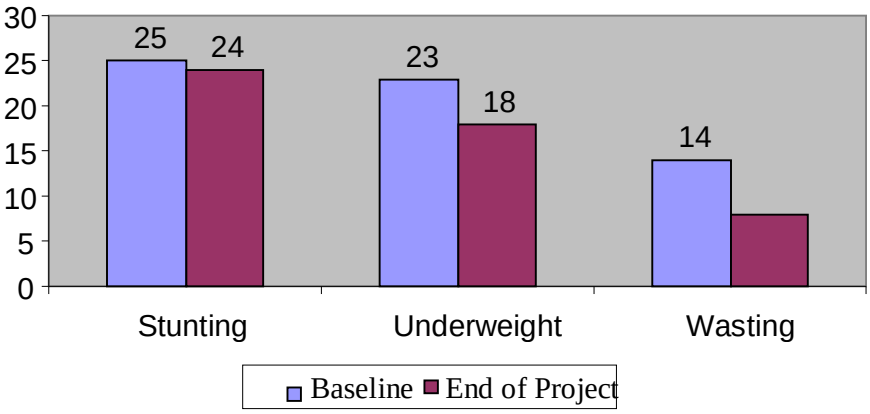


Figure 10.8: Nutritional Status: Before and End of Project



Constraints: Tawana Pakistan Program was winded up before completing full tenure and suffered from interruptions in school feeding during its implementation. Routing of funds through the government system and a complex and multi-tiered project structure resulted in delayed initiation as well as delays in fund disbursement. Absorptive capacity was low for receipt of funds at field level with problems in opening of post office accounts and similarly low for managing of data with NGOs also ill-equipped to deal with data issues. Poor monitoring capacity of Bait-ul-Mal and unclear roles and responsibilities of different stakeholders also created poor oversight Above all, political ownership was the chief barrier with poor program acceptance by district oversight committees due to lack of administrative and budgetary control, as well as lack of strong leadership at the national level due to involvement of multiple ministries.

10.5 UNFPA – FIGO Pilot on Safe Motherhood

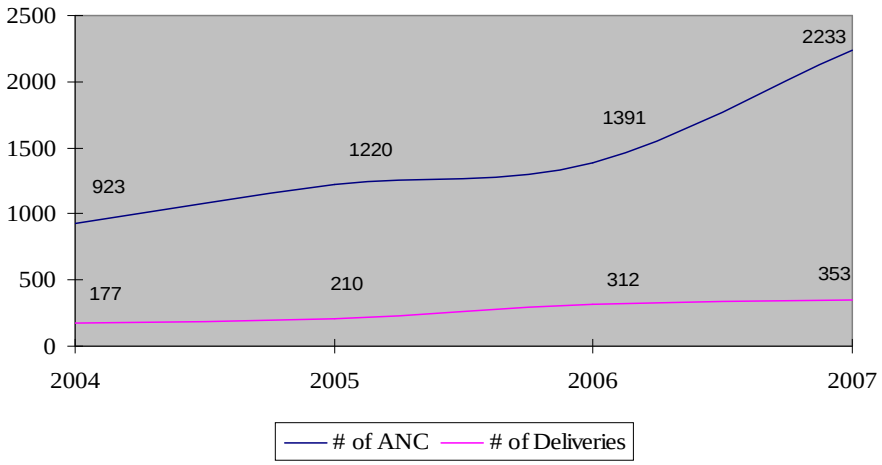
Focus: The UNFPA supported FIGO pilot has used cash awards to government secondary care facilities to improve institutional deliveries. It is being implemented in Thatta and Jacobabad districts of Sindh since 2004, supported by UNFPA and Federal Ministry of Health. In Thatta district it has targeted 10 health facilities and involved a total disbursement of Rs.10, 000,000 with an average of Rs1, 000,000 per health facility.

Implementation Modalities: Cash awards are given to selected THQs and RHCs for repair and out-fitting of delivery rooms and hiring of female doctors and paramedics. Salaries do not follow a fixed formula but generally adjustment is made for more peripheral areas. A district support team comprising district level stakeholders provides local oversight while programming is done through EDO-Health Office. A number of supportive measures have also been provided such as moral support and protection to female staff, rehabilitating female staff residence, provision of TV cable facilities for posted female staff in remote locations, transport allowance, and investment in district level nursing and midwifery school. Monitoring relies on facility based HMIs data and there are presently no measures for verification at field level.

Performance Output: A sharp rise in antenatal visits has been seen with ANCs more than doubling from 923 visits in 2004 to 2233 visits in 2007. Volume of deliveries has shown a

similar two fold increase rising in number from 177 deliveries in 2004 to 353 deliveries in 2007.

Figure 10.9: UNFPA Performance



Constraints: At present the awarding system is mainly input based and experimentation is needed to check further increase in volume with move to put based system with funding award linked to volume of service. Obstacles reported by program managers included lack of health systems vision and capacity in EDO-Health set-up for strategic planning of MCH awards, poor priority to MNCH at district level, and pervasive financial and moral corruption creating difficulty for deployment and retention of female staff.

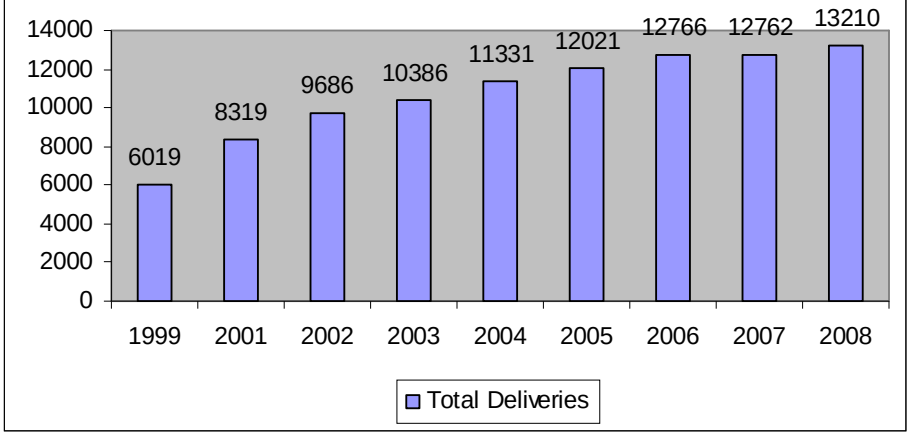
10.6 Tabba Foundation

Focus: A public-private partnership for hospital based maternal health care services is being implemented by Tabba Foundation, a philanthropic organization, and Jinnah Postgraduate Medical Centre. Initiated in 2000, it aims to provide free delivery care to all pregnant mothers registered for delivery through private sector financing and management oversight to the maternity ward while medical care is provided by government hospital staff.

Implementation Modalities: The Tabba Foundation has provided funds for building and equipping of a new maternity ward at JPMC and in addition contributes to all operational expenses except salaries of JPMC appointed staff. Operational expense include medical supplies, drugs, diagnostics, maintenance expenses, salaries of extra paramedic and support staff, and managerial staff appointed by Tabba. Overall management of running of the ward, monitoring of outputs, and managing of finances and book-keeping is provided by Tabba staff. Government in addition also maintains records of women registered for deliveries. There is no selective targeting of patients and all pregnant women registered at the Mohammad Ali Tabba gynaecology wing of JPMC are provided delivery care services free of charge with the rationale being that only poor clientele makes use of government hospitals.

Performance Output: Analysis of hospital data shows doubling in number of deliveries with total annual number of deliveries numbering 6019 pre-project, rising up to 13210 by the end of 2008.

Figure 10.10 Total Number of Deliveries



Constraints: Partnership remains informal in nature as the contract drawn between Tabba and the Federal Government remains unsigned despite laps of several years.

10.7 Green Star Marketing

Focus: Green star voucher scheme was initiated in August 2008 and provides voucher to the poor for family planning and maternal care services. It is currently being carried out in 6 urban union councils of Dera Ghazi Khan District. As yet it is a pilot project with intention of expansion to rural areas in the Jhang District during summer 2009.

Implementation Modalities:
The vouchers are provided through outreach workers recruited by Green star and are relevant for use at green star 'branded' clinics. Help is solicited from LHWs for identification of beneficiaries and beneficiaries are chosen on two criteria.

i. Women who have not been to skilled birth attendants for delivery.
ii. Household income from which beneficiaries are chosen should be less than Rupees 6000 per month.

Green star charges the beneficiaries Rupees 100 for the package of vouchers to create a stake. Vouchers that are provided to the beneficiaries have a monetary value of Rupees 5000 for covering a normal delivery and a preventive package of mother and child services, and in case of a caesarian voucher value of Rupees 10,000 is provided. There are eight vouchers in the package; 3 for ANC visits, 1 for post natal visit, 1 for ultra sound, 1 for tetanus shot, 1 for delivery and 1 for family planning consultations. In addition, transport costs are provided with each voucher of Rupees 250 for delivery and Rupees 50 for other routine services. If caesarian section is required, a special referral is made and the rest of the cost – over and above that of the normal delivery voucher - is provided for.

Performance Output: Since the program has started only recently, performance indicators are preliminary cover a six month period from August 2008 - February 2009. Of the 2000 women who were selected in the first implementation round, 1600 completed the first antenatal visits until February 2009, 1200 women have come for the second antenatal visit and 200 deliveries have also taken place. As data from comparable control sites is not

available it is difficult tm gauge effects. However 80% of the pregnant mothers are registered for delivery while dropout rate is 40%. Antenatal visits are a good indicator given the period when the scheme was initiated. The dropout rate if gauged from the second visit is 40% of the original cohort. We were told that the use of delivery vouchers is however high.

Constraints: Building in of controls and poverty assessment of clients is needed to gauge comparative increase in services outputs of the program and coverage in reaching the poorest. Moreover scaling up of the project is going to create challenges as most of the Green Star brand clinics are in urban areas and will require linking up with public facilities if coverage is to be expanded in rural areas.

10.8 Section Summary

- Generally all mechanism of incentivization have resulted in increase in service output and measures include incentivized salary packages for providers, management contracts, and cash and in-kind incentives for clients.
- Increasing staff salaries as seen in PPHI and UNFPA-FIGO project improves staff attendance and results in rapid rise in target indicators. However careful selection of targeted output is needed ensuring that preventive care does not get neglected at the expense of curative care.
- Experience with management contracts has shown that these can deliver in terms of curative care, staff attendance and general maintenance of health facility when accompanied with increased financial autonomy and strong administrative powers however improvement in MNCH output requires specification of performance based targets in the contract and better coordinatory linkages between tiers of the health care system.
- Due to poor political acceptance of management contracts, these can at best be continued as a contracting-in venture with government agencies better equipped to deal with political friction and would have little chances of success as a contracted-out venture to NGOs.
- Cash incentives for patients have only been implemented through the Population Welfare Program. Low cash value and tight, vertical administrative control has minimized potential of leakages.
- In-kind incentives have been seen to increase targeted outputs as seen in the World Food Program and Tawana Pakistan Project however long term continuity of demand for services could not be established due to frequent disruptions in funds & supplies.
- Lack of strong leadership, multiple bureaucratic tiers and poor ownership of district stakeholders weakens implementation of incentivized programs. Provision of earmarked funds for monitoring and oversight if provided to district government can potentially increase political ownership.
- Universal targeting in government facilities is administratively easy, avoids political pressures for selection and reaches out to the poor population as primarily poor clientele makes use of government health services.
- So far there is little evidence on whether client incentives have reached the poorest. Reaching out to the poorest and remotest groups will involve use of NGOs for community mobilization and empowerment and is likely to increase transaction costs but will also have higher equity value.

Section 11. SUMMARY OF FINDINGS AND WAY FORWARD

11.0 Introduction

This final section of the report identifies placement of key financing strategies for improvement in MNCH health service coverage. It links the supply and demand side gaps identified in previous chapters with key health service and financing inputs needed to improve service output. It in addition identifies supportive measures for implementation of these strategies. A menu of feasible options is identified for implementation across NPPI districts and separate packaging of interventions is also provided by individual districts. The section concludes by suggesting future implementation modalities and areas for further research.

11.1 Overview of Key Gaps in MNCH Service Delivery

Maternal and child health status in NPPI districts is low and significantly lags behind national estimates. Although cause of death data disaggregated by districts is unavailable, national level data suggests that targeted interventions are needed in the peri-natal area with attention to institutional deliveries, newborn care and EmONC services which are presently over-looked areas, as well as revamping of existing maternal and child care service elements such as immunizations, ANC & PNC visits, and preventive care check-ups for children.

MNCH service coverage is provided by both the public and private sectors however coverage levels fall much below MDG targets. There has been an increase in coverage of maternal services in NPPI district over the last five years driven by increased private sector usage, however close to half of pregnant women are still uncovered with coverage significantly low amongst the poor and those residing in peripheral areas. Both maternal and child care outputs at government facilities have remained stagnant and volume of service is particularly low at FLCFs with bypassing of primary tier by clients in favor of hospitals even for routine services such as ANC, deliveries and child illness visits. Outreach programs show a mixed picture with drop in EPI coverage over the last five years however contraceptive use has shown a modest increase and is probably due to the LHW program.

The under-developed context of NPPI districts poses challenges in utilization of health care services in terms of i) low levels of retention of skilled staff; ii) lack of peripheral outreach of both public and private sector services, iii) poorly equipped and stocked facilities and limited opening times; iv) high transport costs; v) poor community awareness for maternal care and child preventive services along with low coverage of LHW program; and vi) community inability to pay resulting in marginalization of preventive and promotive care.

These constraints to service utilization are aggravated by low priority and lack of programming of MNCH services at district level, insufficient administrative control over staffing, inadequate budget and supervision, and need for clinical and managerial skill building.

Section 11.2 details specific health service improvement measures for maternal, newborn and child care, Section 11.3 recommends needed health financing strategies, and Section 11.4 list over-arching governance measures needed to support implementation.

11.2 Recommended Health Service Measures

We evaluated the potential to introduce as well as enhance evidence-based interventions in the NPPI districts based on existing information on the profile of major causes of maternal and child mortality (PDHS 2007) as well as the global evidence base of cost effective interventions based on recent Lancet series on Maternal Health, newborn Health, Child Survival and Nutrition (Bhutta 2008; Kerber 2007; Campbell 2006; Darmstadt 2005; Hill 2004). Table 11.1 below indicates some of the potential opportunities for developing packages of care while fiscal strategies for scaling these up are provided in Table 11.3.

11.3 Proposed Results Based Financing Mechanisms

As both supply and demand side factors are responsible for low MNCH service coverage therefore result based financing mechanisms need to be simultaneously placed on both the supply side and demand side of the health care system. Effectiveness of result based financing mechanism is highly context dependent and are influenced by the local health system and political context, extent of specification to MNCH services and availability of technical capacity for implementation. Financing mechanism involving the private sector are also dependent on availability of private sector market and its interest in public private partnership schemes. Given the NPPI context, strategic placement of strategies is needed to pull in government staff into government EmONC centers and FLCFs, supplementation of government provision with private sector services and increasing client access to transportation.

11.3.1 Supply Side Measures:

Provider Incentives for Government Staff: Given the acute problem of staff shortage and underlying unwillingness to serve in rural peripheral settings provider incentives need to be built in to pull in staff to needed areas and to minimize private sector practice at the expense of government duties. Volume based incentives can be topped onto the basic salary package linking output with service provision. Political acceptability across a range of stakeholders is also the highest for provider incentives as compared to other mechanisms.

Up to 50% of fee charged in comparable private sector facilities is acceptable to service providers and on average works out to be Rs.50 for ANC, PNC, and well baby visits, Rs.300 for child OPD and Rs1000 for deliveries. Disaggregated fee expense for C-Section is not available but approximate incentive would be Rs.5500 at 30% of total C-Section expense and Rs.8500 at 50% of total C-section expense. Further calibration is needed by i) distance of health facility from district center, ii) by regular and non-regular timings, and iii) type of provider. The first two can be adjusted through provision of a hardship allowance on top of the basic salary package while a sliding scale of rates needs to be developed for the third.

Accountability checks need to be built in for ensuring staff attendance and accurate entry of service output. Furthermore disbursement related issues will need to be addressed involving prompt disbursement of provider incentives, direct bank deposit as opposed to cash dealings, and minimization of rent seeking pressures.

Service provider incentivization to effectively address staff shortages also need to be accompanied by additional inputs at the health care facility level as well as at district management level (See section 11.3).

Table 11.1 Recommended Health Service Measures

Areas	Causes of Deaths	Existing interventions	Coverage from Household survey	Coverage from facility survey				Potential interventions (including new strategies)
				DHQ	THQ	RHC	BHU	
Maternal Survival and health	Eclampsia	Availability of delivery room & delivery within facilities		20%	12%	62%	20%	Hypertension screening and treatment for severe hypertension Low dose Asprin in pregnancy (enhanced ANC package) Calcium supplementation during pregnancy (enhanced ANC package)
		Presence of Magnesium Sulphate for control of fits in Eclampsia		20%	4%	20%		Basic obstetric care for eclampsia (Magnesium Sulphate)
	Hemorrhage	Rapid transfer and Provision of Blood transfusion services		80%	52%	-	-	Referral for skilled care including oxytocic use and active management of third of labour for prevention of postpartum hemorrhage. LSCS as indicated
		Misoprostol use / Oxytocic use						
		Active management of third stage of labor						
	Infection	Women who received antenatal care by: Doctor LHV/ Nurse Non SBA	 60% 5% 3%					Continuity of care between trained traditional birth attendants, midwives and doctors Basic 4 visit antenatal care package including 1. Counseling for seeking skilled care, 2. Tetanus toxoid, screening for UTI and hypertension 3. Iron folate administration
		Provision of IV fluids and general support		100%	76.6 %	-	-	Basic obstetric care (clean delivery)
		Availability of antibiotics		60%	53%	29%		Antibiotics for preterm rupture of membranes and suspected chorioamnionitis and post abortion care Antenatal steroids in preterm labour

Table 11.1: Recommended Health Service Measures (Cont'd)

Areas	Causes of Deaths	Existing interventions	Coverage from Household survey	Coverage from facility survey				Potential interventions (including new strategies)
				DHQ	THQ	RHC	BHU	
Neonatal Health	Asphyxia	Availability Cardio pulmonary resuscitation services & trained staff		20%	4%	21%	22%	
		Presence of Ambo bag		40%	24%	-	-	Newborn Resuscitation
		Post-asphyxial care including phenobarbitone						
	Prematurity	Use of antenatal steroids		-	-	-		
		Presence of warmer/ heater		20%	16%	-	-	
		Presence of incubator		20%	0%	-	-	
		Availability of Oxygen supply		20%	0%	22%		
	Infection	Availability of nasal CPAP						
		Cutting cord with clean instrument (CDKs)	42%					
		Breastfeeding initiated : In first hour First day	 20% 30%					Advice and support for early and exclusive breastfeeding Breastfeeding education/promotion strategies
		Provision of IV fluid administration services		80%	47%	-	-	
Child Health	Pneumonia	Availability of Oxygen supply		20%	0%	-	-	Community detection and management of pneumonia
		Presence of Nebulizers		60%	40%	14%		
		Presence of essential drugs for the treatment of pneumonia		20%	8%	71%		
	Diarrhea	Provision of IV fluid administration services		100%	53%	-	-	
		Supply of Zinc & ORS for the treatment of diarrhea	Zinc ORS 58%	20% ?	16% 4%	27% 79%		Preventive Zinc Supplementation in Children Improved diarrhea management by Zinc
	Malnutrition	Presence of Weighing machine		-	-	46%		
		Nutritional status of children: Severely malnourished Moderately malnourished Mild malnourished	 5% 9% 21%					Strategies to promote optimal complementary feeding through nutrition education in food secure populations Balanced Energy Protein supplements and nutrition counseling
		Vitamin A supplementation (6 – 59 months)	89%					Vitamin A supplementation x 2

ii) Drug and Equipment Budget: Core MNCH fund for purchase of drugs, essential commodities and necessary equipment will be needed for government facilities. Budgetary boost needs to be linked to service improvement measures identified in Section 11.4.

iii) Commodity Vouchers: Commodity vouchers can be provided for purchase of necessary supplies from retail outlets. Key areas are delivery kits, diarrhea kits and IV supplies kit for management of neonatal sepsis and puerperal sepsis.

Purchasing of Private Sector Services: Health staff and facility to population ratios will still remain sub-optimal even with filling in of all government staff vacancies unless supplemented with private sector services. Strategic purchasing of private sector services will be required to fill in service delivery gaps and will allow quick roll out of services as well as reduction of service overlaps. However purchasing of private sector services should only be limited to those private practitioners who do not have a dual affiliation so as to avoid negative inducement to health staff for strengthening private practices at the cost of public sector facilities.

i) *Provider Incentives for Private Practitioners:* Given that the private sector mainly comprises of individual practitioners rather than organized health care facility set-ups, purchasing of private sector services will need to target individual practitioners. Incentives can be strategically targeted to improve functioning of pre-identified public health care outlets in each district that lack required government staff and involve volume based payment to private specialists, doctors and LHVs for provision of EmONC and routine MNCH service package at government health care facilities. Incentive rate should be kept consistent with that provided to government staff. Provision of incentives to private practitioners is also likely to result in healthy competition with absentee government staff. Provider incentives will be of greater attraction to those practitioners who do not have a well established practice.

ii) *Service Vouchers:* Purchasing services from private sector facilities through use of vouchers can be applied in the few NPPI districts where an organized private sector is present having well established clinics and hospitals to provide MNCH services, reasonable quality of care and adequate record and book keeping systems. Use of case based vouchers instead of facility contracting has better administrative and political feasibility. Administratively it can be applied to both small individual practices as well as large organized set-ups while politically vouchers have a relatively better acceptance amongst the government and private sector as compared to contracting, sector and are highly favored by clients.

Cost of service voucher based on low client willingness to pay are Rs.600 for ANC and PNC visits, Rs.2000 for delivery, Rs.13000 for C-section, and Rs.400 for child OPD. Service voucher costs based on higher willingness to pay are Rs.300 for ANC and PNC visits, Rs.1350 for delivery, Rs.12500 C-section, and Rs.150 for child OPD. Implementation of vouchers will require listing of accredited private health facilities, provision of information on service outlets to community as well as need for community based referees such as LHWs or NGOs. Distribution of vouchers to the poorest clientele will need to be carefully safeguarded and rigorously evaluated.

Poor Feasibility of Other Measures: Other measures such as contracting and district SWAP-like awards were explored but found to be unfavorable for implementation in NPPI districts.

SWAP like arrangements at the district level are likely to show poor trickle down effects, there is lack of capacity for their implementation and are poorly received by most stakeholders.

There is extreme wariness regarding contracting on the part of both public and private sectors for management contracts while interest is also low for service delivery contracts. Furthermore, existing private sector market in NPPI districts is poorly developed for contracting. Management contracts are better managed by contracting-in arrangements however the existing arrangement with PPHI although successful in addressing staffing in rural areas needs specification of MNCH targets, skill building training of implementers, and greater coordination across stakeholders for improvement in MNCH service outputs.

Purchasing of private sector services needs to be backed up with mapping of accredited providers, training of private providers, and monitoring of quality of care (See Section 11.3).

11.3.2 Demand Side Measures

Client Incentives: Client incentives, in addendum to provider incentives, can be used at designated NPPI supported facilities for routine maternal care and child preventive care visits as clients have particularly low levels of demand for these services. Cash incentives are commonly disfavored by both service providers and clients due to risk of leakages. In-kind incentives such as food ration cards, soap and baby packages are better favored due to lower visibility and hence less chance of misappropriation, lower risk of patient displeasure with service provider in case of disruptions and easier to wean off over time. In-kind client incentives need to target ANC, delivery, PNC & newborn care and child preventive care visits in the first year of life. Client incentives need to be target the same service package and facilities targeted by provider incentive so as to maximize effect in volume.

Service Vouchers: These can be implemented in few districts having more well developed private sector and are detailed above.

Transport vouchers: Transportation vouchers are needed in all districts to offset heavy cost of transport for deliveries and EmONC. Mean voucher value of Rs.700 is required for delivery and EmONC with a range of Rs.400 in districts with higher physical access and as much as Rs.1100 in districts with poorer access. Transport vouchers while offsetting the expense burden on clients of private transport can also serve to pull in private transport to remoter areas.

Targeting: Targeting for community incentives needs to be based on poverty and physical access to health facility. Most administratively feasible option is identification of remote and poverty stricken Tehsils or Union Councils and provision to all families with pregnant mothers and children <1 yrs. Selective targeting of families is likely to be fraught with political interference and is administratively difficult unless piggybacked with planned scorecard system for BISC scheme.

Community Health Awareness Interventions: Enhanced health education at village level will be required to target importance of maternal care and newborn services, recognition of danger signs by mothers, and provide information to clients on where to obtain services. This can be targeted through LHW Program or alternatively through NGOs in areas uncovered by LHWs Some districts where tribal practices are common would require additional investment on

Table 11.2: Summary of Issues , Required Financing Measures and Supportive Measures

	Service Coverage	Issues	Financing Mechanisms	Other Supportive Measures
Public Sector	Low health facility utilization for all services Outreach services have remained stagnant & sub-optimal in certain districts	Shortage of female staff Poorly equipped health facilities Poor staff skills Low priority to MNCH Governance issues	I. Provider incentives to government staff FLCF: ANC, delivery, PNC & newborn visit, 2 infant preventive care visits Secondary care tier: normal deliveries, complicated deliveries, C-section, child illness OPD, child illness admission II. Drug and equipment budget III. Vouchers for drugs and commodities : diarrhea kits, IV fluid kits, delivery kits,	Class I powers for staff management Supportive safety & security measures for female staff Increase in operational budget Red category list of stock-outs Enhancement of stewardship role of government Capacity building in management + clinical skills
Private Sector	Main provider for delivery, acute child illness and maternal complications Little role in preventive services	Small scoped after adjusting for dual practices Individual providers rather than well developed health facilities Questionable QOC Clustering in softer areas	Provider incentives: Volume based incentives to individual practitioners for practicing at government facilities. Service vouchers in the districts having more developed private sector for ANC, delivery, EmONC, PNC& newborn visit, and 2 infant preventive care check-ups	Listing of accredited providers Skill enhancement training Record keeping training for vouchers
Community	Utilize services in case of complications/ emergency Better uptake of services provided at doorstep e.g. EPI Insufficient coverage & weak programming of LHW program	Poor financial access for all facility based services Poor physical access for deliveries and EmONC Low demand for maternal care services	In-kind incentives for ANC, delivery, PNC& newborn visit, and 2 infant preventive care check-ups Service delivery vouchers in districts having private strength Transport vouchers for deliveries and EmONC	Extending LHW coverage and improving client referrals from existing covered areas Community mobilization and awareness through NGOs in uncovered areas

demand side through community mobilization schemes and modification of targets from facility based deliveries to supervised deliveries. A strong NGO role would be needed in these districts.

Improving Effectiveness of LHW Program: More effective role of LHW program is needed for increasing client demand and requires i)expansion of LHW coverage, ii)tightening of supervisory control, iii)targeted improvement in LHW knowledge and skills for risk assessment and referral, and iv)stronger linkage with health facility. Coverage expansion should be in a phased manner involving short and long term strategies such as introduction of a career pathway for upward movement of LHWs, relaxing eligibility rules for more remote areas and incentivized school education linked to job provision.

For implementation of result based financing measures the government's stewardship role involving strategic planning, purchasing and monitoring of services will need to be strengthened. Required measures for movement to this function are listed further on in Section 11.4. Furthermore, strict accountability checks will be needed for implementation of above listed strategies (Section 11.6).

11.4 Accompanying Supportive Measures

Key supportive measures will be required for implementation of result based financing measures across all NPPI districts and include measures for i)human resource strengthening ;ii) improved service provision at government facilities, and iii) enhancement of stewardship function. These are detailed as follows:

11.4.1 Human Resource Strengthening

Staff retention measures: For improved female staff availability financial incentives alone will not be enough and need to be accompanied by other measures to ensure adequate retention. Supportive security measures are needed such as pairing of female staff for non-regular duty hours, provision of male chowkidar, adequate night stay facility, sufficient incentive level for accompaniment of male family member and strong political emphasis on all local stakeholders for protection of female health staff from sexual harassment. Frequent transfers to softer areas is likely to remain an issue unless accompanied by Class I powers on trial basis in NPPI districts, as already done for PPHI, to counter political interference and strengthen administrative control of district government.

Alternative staffing strategies: Availability of specialist and female doctors is likely to improve with incentivized pay but will still fall short of required strength in the more remote districts and those with law and order problems. Alternative staffing strategies should be experimented in such districts involving upgrading skills of general cadre for dealing with EmONC and increasing local production of female paramedics for provision of routine maternal care at the FLCF tier.

Training: Comprehensive training is needed across all NPPI districts for both government staff as well as targeted private sector staff in the areas of IMCI, newborn care and maternal complications. Staff training is also needed in data entry and record keeping of MNCH indicators.

11.4.2 Improving Service Provision

Budgetary Inputs: Increase in operational budget is needed MNCH and requires increasing the budgetary share at district level for non-salary operational costs and increased provincial allocations for incentivised staff salaries. In addition, development funds can also be flexibly

used towards soft projects such as monitoring, training and public-private partnership schemes as opposed to facility construction which entails increased in future recurrent costs. Secondly, ring-fencing of non-salary operational funds is needed to avoid squeeze on operational expenditure and funds need to be clearly earmarked for essential stocks and medicine provision, repair and maintenance, and improved monitoring. Thirdly, tracking of funds for MNCH is needed through move from input to output based budgets and would require technical assistance for building of appropriate financial information systems and training of managerial and technical staff.

Out-fitting of facilities: Significant improvement needs to be made in terms of equipping health facilities for provision of MNCH services. Provision of emergency care equipment to DHQs and THQs and routine delivery and diagnostic care equipment to RHCs and BHUs is needed along with development of a red category stock list for earmarking essential medicine and supplies provision for EmONC and routine care services. These need to be accompanied by an enhanced MNCH budget as detailed above.

Improved supervision and ear-marked time for MNCH services: Ring-fencing of service providers time from polio and other vertical activities is required in addition to outfitting and stocking of health care facilities. Quality of supervision also needs to be addressed and would require sensitization training of district managers on MNCH services, increased number of supervisory visits, and skill building and use of supervisory checklists for quality supervision.

11.4.3 Enhanced Stewardship Role

Enhancement of stewardship role is required for result based financing and will require district based planning, public-private partnerships and increased monitoring and coordination.

- *District health plans:* District sector wise plan for MNCH need to be developed in each district to set service delivery goals, identify and act on existing gaps in government services and identified areas for strategic use of private sector. The practice of district needs assessment exercise needs to be institutionalized and conducted on a medium term basis, and followed by the development of annual district health plans. Annual budgetary process needs to be closely linked with developed annual district health plans.
- *Coordination and monitoring:* The stewardship function would require increased monitoring of government services as well as enhance coordination with private sector. Dialogue and coordination with private sector needs to be initiated for i) involvement of private sector in district planning for MNCH; ii) information collection from private sector on staffing and key MNCH outputs; iii) identifying areas of collaboration and terms of engagement. Visibly strengthened monitoring of government services need to take place supported by ear-marked budget for monitoring visits, skill building training in monitoring, shift to DHIS system and incorporation of EMOC indicators for health facility monitoring, and building in cross- verification of health facility data through better linkage with LHW program as well as community level spot checks..
- *Measures for purchasing private sector services:* Careful listing of certified private practitioners, development of minimum standards of care, and refresher clinical training are required prior to purchasing services of individual practitioners. In instances where private sector facilities are used for vouchers, technical assistance on record keeping and financial systems will also need to be provided to the private sector facilities.

- *Reducing fragmentation of health system:* MNCH services require critical integration across health system tiers. Provision of effective integrated services will require i) tangible coordination across the secondary level, first level and community level tiers in planning, implementation and monitoring of MNCH services under the umbrella of a coordinated district health plan; and ii) reduction in compartmentalized tiers with BHUs and community outreach services to be managed by a single agency.
- *Capacity Building:* Sensitization and skill building training of district managers are needed for move towards a stewardship role. Key areas for formal skill development are district health planning, stewardship and purchasing skills, output based budgeting, and improved monitoring and need to be accompanied by focal trainings on MNCH needs assessment, programming and monitoring. Capacity building needs to be accompanied by key measures for effective uptake of imparted skills and these include retention of trained managerial staff at place of posting for at least a three year period, mandatory development of district health plans, provision of greater administrative control for flexible programming and increased budget for monitoring and supervision. Mandatory training for administrative cadre linked to service entry and career progression is a larger issue which can be addressed through civil service reforms in the health care sector.

11.5 Strategizing Financing Measures by Districts

A meta-analysis of key health system indicators was conducted for each of the districts to produce a consolidated and comprehensive picture of district specific constraints so as to stratify proposed interventions by districts.

We find that all districts are almost equally poor in terms of health status indicators however differ somewhat in terms of public sector performance and even more in terms of private sector market and physical access to health facilities.

Table 11.3: Scoring Health System Performance by District

District	MICS[1] (10)	Public Sector				Pvt. Sector Market[5] (15)	Physical Access[6] (10)	Score (100)	Ranking
		Staffing[2] (25)	QOC[3] (15)	Service Coverage[4] (20)	Aggregate Public Sector Score (60)				
Tharparkar	3	7	5	6	18	3	3	**26**	Lower
Kashmore	3	10	4	2	16	5	3	**27**	Lower
Qambar	5	10	6	4	20	5	0	**29**	Lower
Jamshoro	5	11	4	6	21	4	1	**31**	Medium
Umarkot	4	11	4	4	19	4	6	**33**	Medium
Larkana	5	10	5	4	19	7	3	**34**	Medium
Ghotki	4	11	4	2	17	9	6	**36**	Higher
Nawabshah	4	12	5	6	23	6	2	**36**	Higher
Badin	4	13	4	6	23	7	3	**37**	Higher
Shikarpur	4	13	5	6	22	7	3	**38**	Higher

[1] MICS data for socio demographic indicators and Health indicators

[2] Staffing of Public Sector was analyzed in terms availability of specialist, Medical Officer, Female Medical Officer and Female paramedic staffs

[3] Availability of Equipment, supplies and Basic and emergency MNCH facilities

[4] MNCH service coverage at public sector

[5] Service Coverage at Private Sector

[6] Physical access in terms of Transport cost incurred to avail the service at Public / Private health facilities

Scores: lower scores = poor indicators ; higher scores = better indicators

Provider incentives for government providers supplemented by incentives for private practitioners to further increases staff strength need to be implemented in all districts as staffing is poor across all districts. However higher incentive amount needs to be given to Tharparkar, Kashmore and Qambar, lesser incentive to Jamshoro, Umarkot and Larkana while lower level incentive can be kept for Ghotki, Nawabshah, Badin and Shikarpur.

Drug, equipment and monitoring budget needs to be provided to all NPPI districts as quality of care at health facilities and service outputs are extremely poor in all. Budget allocation needs to be heavier for Kashmore, Ghotki, Tharparkar, Umarkot, and Larkana districts as compared to other districts. Commodity vouchers for purchase of essential supplies from retail outlets can be used in addendum to budget topping in the districts of Kashmore, Ghotki, Tharparkar, Umarkot, and Larkana where public sector facilities are the most poorly outfitted.

Purchasing of private sector services through service vouchers can be implemented in districts Ghotki, Larkana, Badin, Shikarpur, and Nawabshah as these have a relatively more developed private sector market.

Transport vouchers for delivery and EMNOC needs to be implemented in all districts except Umarkot and Ghotki which have relatively better scoring for physical access to services. Higher rates of transport vouchers are needed for Qambar, Jamshoro and Nawabshah as these have the lowest physical access and highest transportation charges while lesser value transport vouchers can be used for Badin, Shhikarpur, Tharparkar, Kashmore and Larakana.

In-kind client incentives can be used to target ANC, delivery, PNC & newborn care and child preventive care visits in the first year of life and commonly preferred by all stakeholders to cash incentives. These can be implemented in districts of Tharparkar, Kashmore, and Qambar which have the lowest aggregate ranking amongst all NPPI districts.

Financing interventions for each district would need to be supported by over-arching health service and governance support measures as outlined in Section 11.2 and 11.4 respectively.

Highest amount of financial and technical investment will be required for the districts of Tharparkar, Kashmore and Qambar which have the lowest aggregate score in terms of health system performance. Comparatively lesser assistance will be needed by the middle ranking districts of Umarkot, Larkana and Jamshoro followed by the relatively higher ranking districts of Badin, Ghotki, Shikarpur, and Nawabshah.

Way forward would involve piloting of financing interventions in few selected districts accompanied by robust operations research before expanding to other districts. Law and order is an overarching issue that needs to be addressed for either private or public sector to succeed in some of the surveyed districts.

11.6 Implementation Modalities

11.6.1 Service Improvement by Government:

Implementation of result based financing strategies would require service improvement measures by government supported by increase in operational budget and enhancement of stewardship role. Key service improvement measures have been detailed in Section 11.3 and

include filling of staff vacancies and improvement in staff retention; identification of essential stock and improved stock management; and out-fitting of facilities for new born care, IMCI, deliveries and EmONC. These need to be supported by overarching governance measures including increase and ring-fencing of operational budget for MNCH, and including provision of Class I administrative powers, district health plans linked to ADPs, retention of managerial staff, improved monitoring, and output based tracking of expenditure. EDO-Health offices would need to be supported through budgetary input as well as technical assistance for bringing about improvement in service delivery.

11.6.2 Independent Agency for Reward Management

For transparent and efficient functioning, a split needs to be made between the service provision function and the performance tracking and award disbursement role. There was common consensus amongst all stakeholders including health care managers, health facility staff, and private sector and community recipients on need for an independent agency for management of financial rewards and monitoring of service volume. Inclusion of an independent party is expected to increase transaction costs however cost increase needs to be balanced against potential benefits including presence technical capacity, potentially fast disbursement system and above all minimization of political interferences and increasing recipient confidence in participating in result based financing schemes.

The provision of this role can be competitively contracted out at the provincial level to an independent agency having the required expertise followed by setting up of district field offices by the selected agency in NPPI districts. Similar independent agency role was built into the Enhanced HIV Control Program to for management of contracted NGO awards however there was under achievement of designated role due to over-lapping of authority between the independent agency and government. Clear-cut TORs, independent financial authority, and a separate budget should be provided to the contracted agency however it would need to work in close coordination with EDO-Health, PPHI and MS of DHQ hospitals.

11.6.3 External Validation

External validation is needed on annual basis to provide robust results on actual service coverage and trickle down effect to community. Validation checks are needed in addition to independent party implementation for two reasons. Firstly, existing monitoring systems lack community level verification mechanisms, are susceptible to reporting of inaccurate data and cannot capture service distribution in the community in a standardized manner. Secondly, although a third party would reduce political interference, however to minimize chances of collusion, separate validation checks need to be conducted. A provincial based party can be assigned to annually conduct validation checks in each of the districts.

11.6.4 Technical Assistance

Technical assistance is needed in three key areas and can be provided by a single out-sourced agency or different agencies:

- *Clinical Training:* Refresher training of specialists, doctors and LHVs are needed in newborn care, IMCI, risk screening for deliveries, and emergency maternal care. These need to address both government staff as well as private practitioners used for supplementing services. In districts where required number of specialist staff is not

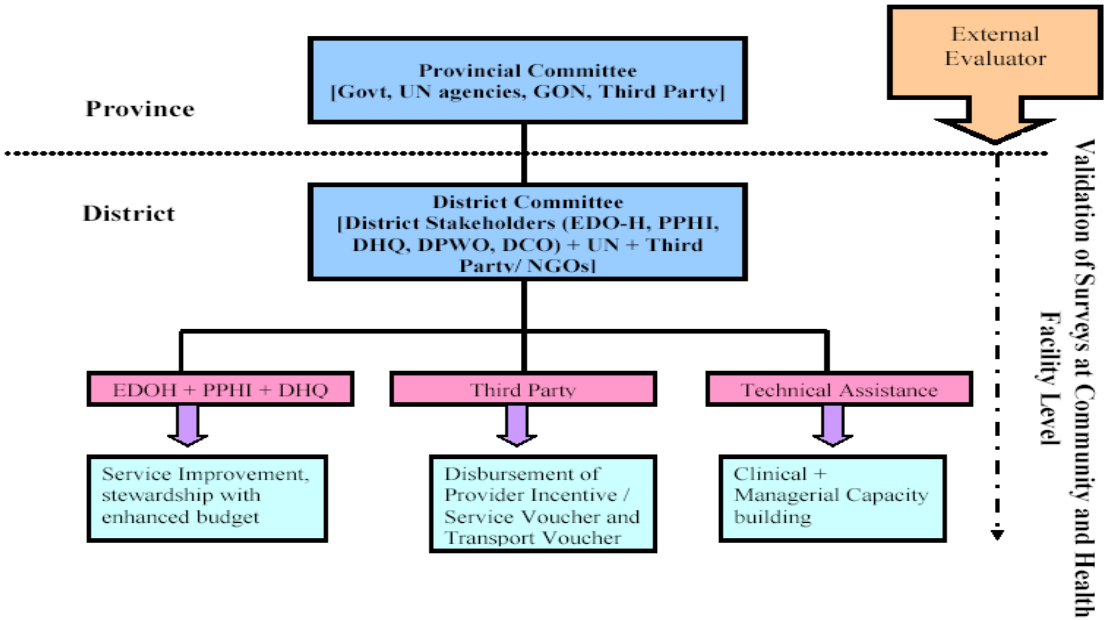
available across both public and private sector, upgraded skill enhancement of general cadre staff can be done for provision of specialist care.

- *Leadership Training in Health Systems:* Sensitization and skill building training of district managers are needed for move towards a stewardship role. Key areas for formal skill development are district health planning, stewardship and purchasing skills, output based budgeting, and improved monitoring and need to be accompanied by focal trainings on MNCH needs assessment, programming and monitoring. Key measures need to be simultaneously built in for effective uptake of capacity building such as retention of trained managerial staff, greater provision of administrative powers, linking of district health plan with budgetary process and increased budget for monitoring and supervision. A formal training process followed by significant on-job technical assistance will be required.
- *Sensitization on MNCH:* Sensitization of district health managers and district government are needed on importance of MNCH services, key strategies for improvement and use of evidence based information for oversight provision.

11.6.5 Structure of Implementing System

A three tiered system is proposed for implementation and monitoring of proposed output based measures (Figure 11.1).

Figure 11.1: Implementation Structure



Tier I: This tier would directly deal with the implementation of the project and the specific arms would include i) service strengthening; ii) disbursement and monitoring; and iii) technical assistance.

i) *Service improvement:* Service improvement within the government sector through provision of delineated responsibilities, service improvement budget and technical assistance to the district health set-up.

ii) *Disbursement and monitoring:* Routing of cash rewards and output tracking implemented through an independent agency based within the district during the tenure of the project.

iii) *Technical Assistance:* Provision of formal and on-job training on clinical skills for service providers, leadership capacity building of district managers and MNCH sensitization of district stakeholders.

Tier II: An overarching body at district level comprising the health department and PPHI implementers, the third party, DCO and UN representative to provide two functions: i) necessary coordination across service providers including EDO-Health, MS of DHQ and PPHI for integrated implementation of MNCH services; and ii) project oversight and review at district level.

Tier III: A provincial level body comprising the government, UN agencies, third party, external evaluator and donor agency to provide overall oversight on selected project districts. A provincially based external validator would conduct annual validation of district performance and cross-verification of reward transparency.

11.7 Areas of Future Research

It is recommended that the implementation of NPPI interventions be piloted in 3-4 selected districts supported by operations research for rigorous and standardized assessment. It is suggested that operations research should involve case and control sites as well as baseline and end line evaluations. On the basis of results, the pilots can be extended to other districts.

In addition, formative research is needed in a number of areas:

- Development of district health profile systematically linking mortality burden, cause of death data, service utilization and quality of care indicators.
- Comprehensive and disaggregated district level mapping of existing sources of MNCH funding, spending levels of different stakeholders, and tracking of funding to EmONC and routine MNCH service utilization.
- Establishment of patient out-of-pocket expenditure for MNCH by equity rankings and affordability implications for community.
- Examination of public-private partnerships in terms of :
    - Effective and feasible elements of governance in successful PPP ventures
    - Extent and depth of social accountability to clients and community in public-private partnerships for MNCH.

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Annex 2: List of Persons Met

Department of Health, Sindh
Dr. Capt. Abdul Majid, Special Secretary Public Health.
Dr. Ghulam Nabi, Director General Health Services.
Dr. Sahib Jan Badar, Director MNCH Program.
Dr. Mazhar Khamisani, Director EPI Program.
Dr. Nazar Mohammad Junejo, Provincial Coordinator NPFP & PHC.
Ms. Ruby Iqbal, Director Nursing.
Dr. Dur-e-Shewar, Program Director, World Food Program.
Dr.Masood Solangi, Director Preventive Services, DGHS.
Dr. Salma Bozdar, Director RCH Program.
Dr. Thebo, Director Administration & Accounts, DGHS.
Dr. Mohammed Ali Leghari, Deputy Director HMIS, DGHS, Sindh
Ms. Mehboob Sultana, Controller Sindh Nurses Examination Board
Dr. Shaista Mubarak, Planning and Development Wing.
Mr. Nawaz Burdi, SO, Planning and Development Wing.

Related Government Departments & Agencies
Lt. Col. Rtd. Nadeem Sipra, Bait-ul-Mal
Mr. Mohammad Abbas, Director General, Department of Population Welfare, Sindh
Dr. Fawad Shaikh, Chief Health, Department of Planning and Development, Sindh
Mr. Atif Aziz, Deputy Secretary, Department of Finance, Sindh.
Mr. Rizwan Tariq, Deputy Secretary, Department of Finance, Sindh
Dr.Noor-ul-Haq, Director Devolved Social Sector Program, Sindh
Dr. Riaz Memon, Director, PPHI Sindh
Mr. Asif Iqbal Channa, Executive Administrator, PPHI Sindh
Mr. Tariq Qureshi, Regional Director, PPHI Sindh

International Agencies
Dr. Asif Aslam, UNICEF
Dr. Hafeez Pirzado, WHO
Dr. Jawed Shaikh, WHO
Dr. Nasreen Khan, WHO

NGOs/ Other Stakeholders
Ms. Naheed Najmi, Administrator, Tabba Project JPMC.
Dr. Saif-ur-Rehman, District Program Officer Thatta, FIGO-UNFPA
Dr. Sohail Agha, Greenstar
Mr. Habib Peer Mohd, Pakistan Tawana Project, Aga Khan University.
Dr. Ghazala Rafique, Pakistan Tawana Project, Aga Khan University.
Mr.Haris Gazdar, Expert, National Social Protection Strategy

District Level
Dr. Abdul Sattar Channa, EDO-H, Badin
Mr. Ali Sher Dahri, DPWO, Badin
Dr. Javed Ali Khowaja, PPHI, Badin
Dr. Hassan Memon, PMA Badin
Dr. Anita Khowaja, SMO, Badin

Mr. Sardar Ali Gohar Khan Mahar, District Nazim, Ghotki.
Dr. Ayaz Ali Jumani, EDO (H), Ghotki
Mr. Choudhry Irshad Ahmed Jat, DPWO, Ghotki
Dr. Syed Altaf Hussain Shah, District Officer Health (Preventive), Ghotki
Mr. Irshad Ahmad Jat, DPWO, Ghotki
Dr. Altaf Soomro , Epidemiologist, Ghotki
Dr. Ali Hassan Mahar, PMA, Ghotki.
Ms. Najeeba Laghari, LHW Program, Ghotki
Dr. Syed Munawar Ali Shah, EDO-H, Jamshoro
Dr. Barkat Ali Laghari, LHW Program, Jamshoro
Mr. Altaf Jokhi, PWO, Jamshoro
Dr. Ghulam Akbar, DDO HRD, Jamshoro
Dr. Riaz Ahmed Qureshi, GP, Jamshoro
Mr. Zahid Hussain Memon, DCO, Qambar
Mr. Zulfiqar Ali Detho, DPWO, Qambar
Dr. Saifullah Abbasi, District Officer (DO), Medical & Public Health, Qambar.
Dr. Mumtaz Ali, DDO Admin and Accounts, Qambar
Dr. (Capt.) Munir Ahmed Jokhio, GP, Qambar.
Dr. Gul Mohammad, MS, THQH (To be upgraded to DHQH), Qambar
Dr. Syed Imtiaz Ali Shah, MS, THQH, Qambar
Dr. Agha Noor Ahmed, EDO (Health), Kashmore
Mr. Imadad Ali Talpur, DPWO, Kashmore
Mr. Allah Dino Samtio, Deputy DPWO, District Kashmore
Dr. Ehsan Akhter, LHW Program Kashmore
Dr. Shaukat Abro, LHW Program, Kashmore
Dr. Suresh Kumar, PMA, Kashmore
Mr. Mohammad Yasin Shar, EDO-Finance, Larkana
Dr. Abdul Fatah Bughio, EDOH, Larkana.
Mr. Ghulam Abbas Detho, PPHI, Larkana.
Mr. Arbab Ali Suhag, DPWO, Larkana.
Dr. Ikram Ahmed Tunio, GP, Larkana
Mr. Mushtaque Ahmed Mirani, PPHI, Tharparkar
Mr. Aijaz Ali Siyal, Deputy DPWO, Tharparkar
Mr. Samiuddin Siddiki, DCO, Tharparkar
Dr. Bansari Dar, DDO, Tharparkar
Dr. Mohammad Nawaz Abbasi, DOH, Tharparkar
Dr. Rafique Ahmed Kolachi, DOH, Tharparkar
Dr. Chaman Lal , PMA, Tharparkar
Dr. Nasrullah Thebo , PPHI, Tharparkar
Mr. Imam Zaidi Chandio, RHSA, Stentroform, Tharparkar
Dr. Bahadur Khan Khero, EDO (Health),
Mr. Riaz Ahmed Shar, EDOH, Nawabshah
Mr. Riaz Ahmed Shar DPWO, Nawabshah
Dr. Daulat ali Jamali, LHW Program, Nawabshah
Mr. Khursheed Naeem Malik, Establishment and Revenue department, Nawabshah
Dr. Naseer Ahmed Shaikh, MS, People's Medical College (PMC) Hospital, Nawabshah
Dr. Munir Ahmed Arain, President PMA, Nawabshah.
Mr. Ali Akber Hingoro. District Coordination Officer, Shikarpur.
Dr. Kishore Kumar Khatri, District Officer, Admin & Accounts, Shikarpur.
Dr. Shabbir Aman Shaikh, DDO HRD, Shikarpur

Mr. Javaid Ahmed Panhwar, DPWO, Shikarpur.
Dr. Deepak Kumar, Private Practitioner, Shikarpur.
Dr. Agha Aftab Ahmed-MS, DHQH, Shikarpur
Mr. Faquir Maghan Mangrio-District Nazim; Umarkot.
Dr. Aziz, EDOH, Umarkot
Mr. Ali Akbar Leghari, District Coordination Officer, Umarkot
Mr. Ghulam Rasool Memon, DPWO, Umarkot
Dr.(Capt) Mohammad Umar Rind EDOH Office, Umarkot
Dr. Om Parkash Mathrani, EDOH office, Umarkot
Dr. Jadho Mal, PMA, Umarkot
Mr. Syed Attaullah Shah, PPHI, Umarkot
Dr. Jewat, Executive Officer M&E PPHI, Umarkot

Annex 3: Rating of Management Information Systems

MIS System	Relevance	Reliability	Accuracy	Usability	Timeliness	Completeness	Overall
Ghotki							
MIS/FLCF System	3		3		5	3	3.75
LHW MIS	3.5		2.5		4	3.5	4.75
PPHI - BHU	Non PPHI						
Population welfare	3	3	2.5	3.5	4	4.5	4
Jamshoro							
MIS/FLCF System	3		3		2.5	5	4
LHW MIS	3		3		4.5	5	3.5
PPHI - BHU	Non PPHI						
Population welfare	3	3	3	3.5	4	4	4
Tharparkar							
MIS/FLCF System	3		3		2	3	3
LHW MIS	4		4		2.5	4	
PPHI - BHU	3		3		3	3	3
Population welfare	2		2		2	2	2
Kambar							
MIS/FLCF System*	3.5	3.5	2	4	3.5	2.5	3.5
LHW MIS	3	3	3	4	5	4.5	5
PPHI - BHU	Did not cooperate to provide information						
Population welfare							
* Computer was out of order							
Kashmore							
MIS/FLCF System*	4	4.5	4.5	5	4	5	4.5
LHW MIS	3	5	3	5	5	4.5	2.5
PPHI - BHU	Did not cooperate to provide information						
Population welfare	3	5	3	5	5	4.5	2.5
*No data entry for the past six months							
Nawabshah							
MIS/FLCF System	4.5	4	4.5	4	5	5	4.5
LHW MIS	3	3.5	4.5	4	5	5	4
PPHI - BHU	Non PPHI						
Population welfare	3.5	3.5	3	5	4.5	4	3.5
Larkana							
MIS/FLCF System	MIS staff was out of office for training on DHIS in Islamabad						
LHW MIS	4	4	3	3	4	4	4
PPHI - BHU	3.5	5	5	4	5	4.5	4

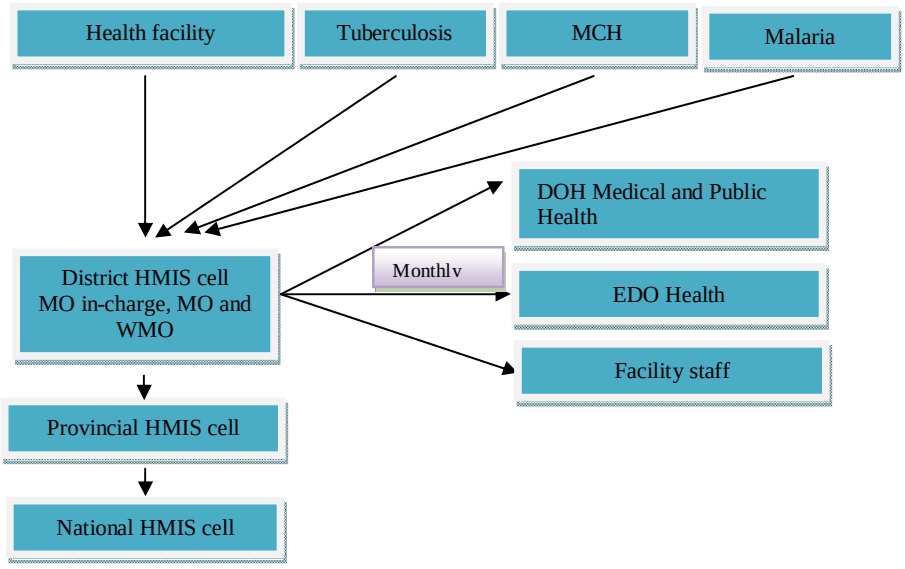
MIS System	Relevance	Reliability	Accuracy	Usability	Timeliness	Completeness	Overall
Population welfare	Did not cooperate to provide information						
Umarkot							
MIS/FLCF System	3		3		4	3	2.5
LHW MIS	4.5		4		5	4.5	4
PPHI - BHU	3	2.5	3		3	4	2.5
Population welfare*	4	2	3.5		5	3.5	3.75
*The system agreed that they do bogus data for facilities where usage is low							

Source: NPPI feasibility study, Sindh, 1999

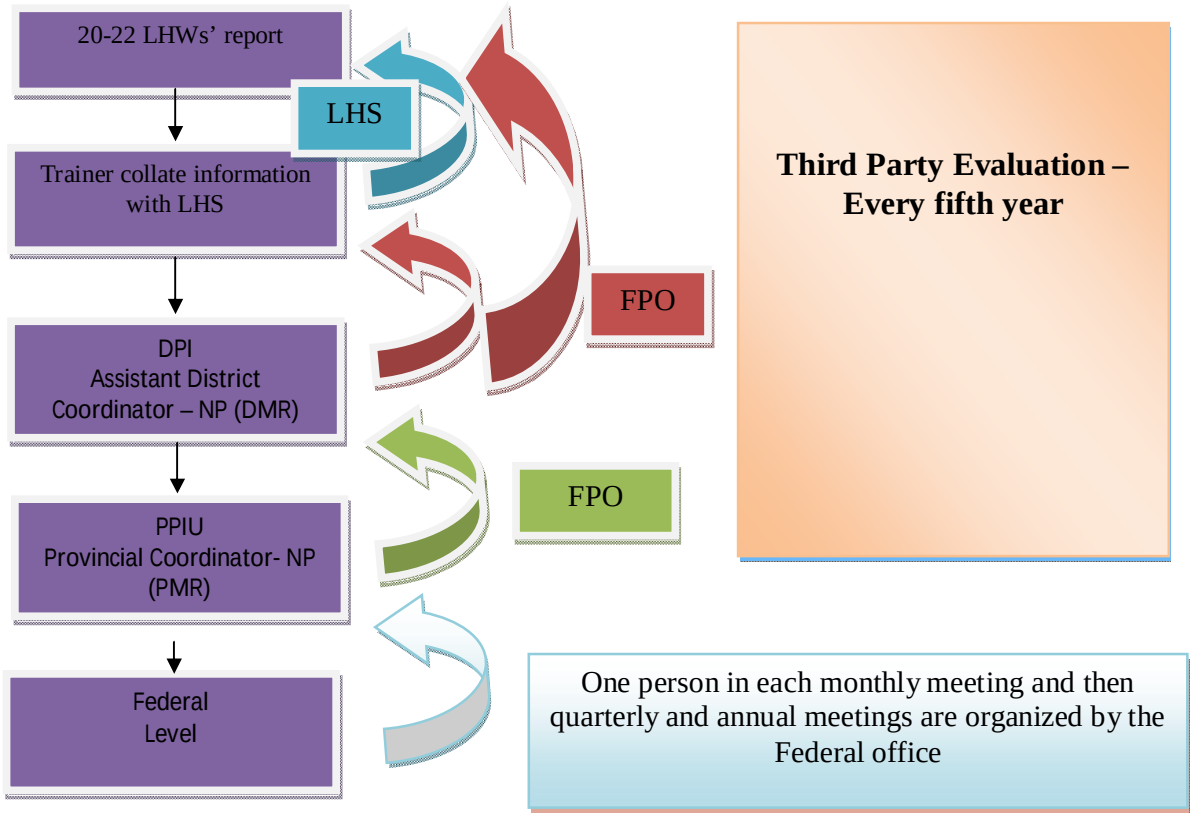
District ratings and ranks		
Districts	*Rating by system*	*District ranking by systems' rating*
Badin	2.8	9
Shikarpur	1.9	10
Ghotki	3.6	3
Jamshoro	3.6	3
Tharparkar	2.7	8
Kambar	3.6	3
Kashmore	4.2	1
Nawabshah	4.2	1
Larkana	4.1	2
Umarkot	3.5	6
Source: NPPI feasibility study, Sindh, 1999		

Annex 4: Flow of Information

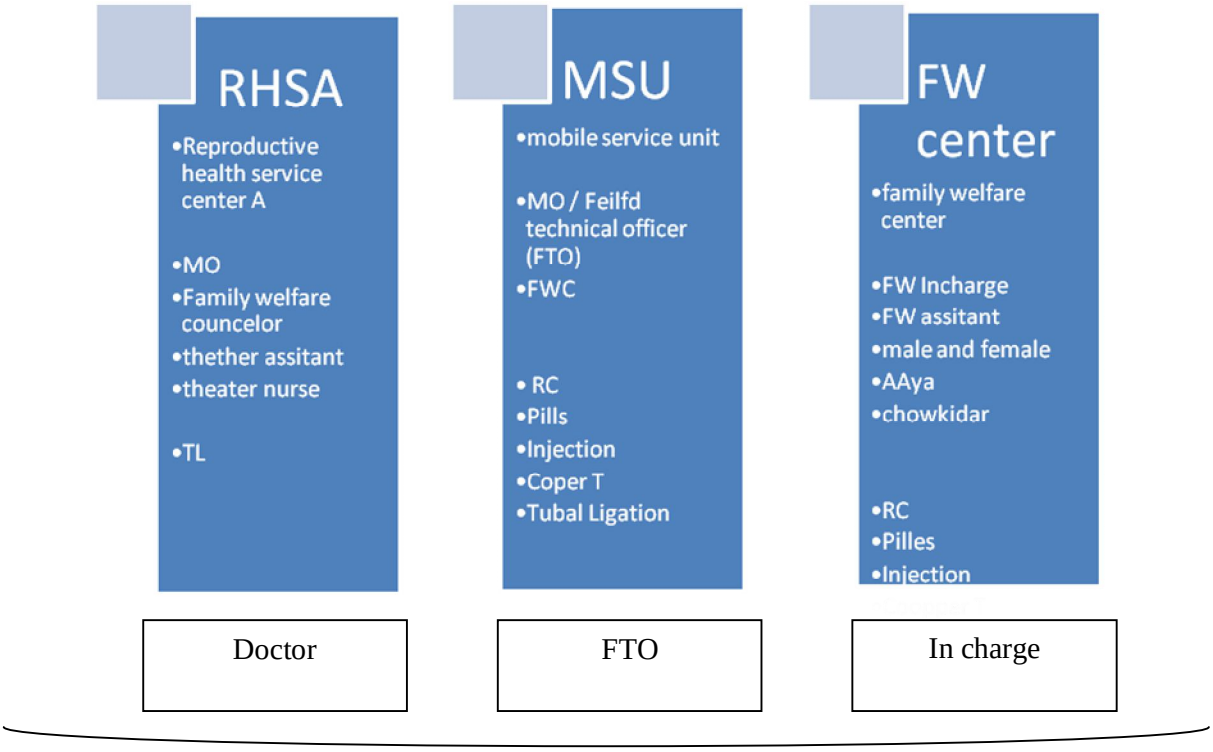
HMIS



LHW Program



Population Welfare Program



Daily client register

Compile manually and form a report

District level (35 facilities +MM)

Monthly performance report

Provincial

Federal

Annex 5: Ratings of Financial Information Systems

KASHMORE

Criteria	EDO	LHW	OVERALL RATING
Output-Linked Information	Non-Existent **1**	Non-Existent **1**	**1**
Computerization	Manual System **2**	Manual System **2**	**2**
Frequency of Record-Updating	Monthly Account Settlements. Report then sent to DCO **4**	Quarterly Account Settlements. **4**	**4**
Trained Personnel	-All sanctioned posts are filled. -All officers are B.Com -No training received by government. **3**	-All sanctioned posts are filled. -All officers are B.Com -Some workshops organized, the last one being a year ago. **4**	**3**
Timeliness of Disbursement	-Monthly release of salary and non-salary component. -No delays in fund release. **4**	-Quarterly release of non-salary component -Some delay in release of funds. **3**	**3**

QAMBAR

Criteria	EDO	LHW	PWO	OVERALL RATING
Output-Linked Information	Non-Existent **1**	Non-Existent **1**	Non-Existent **1**	**1**
Computerization	Partial: Manual system but account reconciliation is done on monthly basis on Excel **3**	Manual System **2**	Manual System **2**	**2**
Frequency of Record-Keeping	Monthly Account Settlements **4**	Quarterly Account Settlements **4**	Quarterly Account Settlements **4**	**4**
Trained Personnel	-All sanctioned posts are filled. -DCO complained no one is prepared to go for additional training/higher training. **2**	-All sanctioned posts are filled. -No mention of training. **3**	-All sanctioned posts are filled. -No mention of training. **3**	**3**
Timeliness of Disbursement	-Monthly release of salary and non-salary component. -No delays in fund release. **4**	-Quarterly release of non-salary component and monthly release of salary component. -Some delay in fund release. **3**	-Quarterly release of salary and non-salary components. - Extensive delays in release of funds. **2**	**3**

LARKANA

Criteria	EDO	LHW	PWO	OVERALL RATING
Output Linked Information	Non-Existent **1**	Non-Existent **1**	Non-Existent **1**	**1**
Computerization	Manual system but account reconciliation is done on monthly basis on Excel. **- 3**	Manual System **2**	Manual System **2**	**2**
Frequency of Record-Keeping	-Monthly Accounts Settlements. -Report then sent to DCO. **4**	-Quarterly Account Settlements. **4**	Quarterly Account Settlements. **4**	**4**
Trained Personnel	-All sanctioned posts are filled. DCO explained no formal training is given, and officers in accounts division are just graduates. **3**	-All sanctioned posts are filled. -No mention of training. **3**	- All sanctioned posts are filled. - No mention of training. **3**	**3**
Timeliness of Disbursement	- Monthly release of salary and non-salary component. - No delays in fund release. **4**	- Quarterly release of non-salary component and monthly release of salary component. - Some delay in release of funds. **3**	-Quarterly release of salary and non-salary components. -extensive delays in release of funds. **2**	**3**

NAWABSHAH

Criteria	EDO	LHW	PWO	OVERALL RATING
Output-Linked Information	Non-Existent **1**	Non-Existent **1**	Non-Existent **1**	**1**
Computerization	Manual System **2**	Manual System **2**	Manual System **2**	**2**
Frequency of Record-Keeping	Monthly Account Settlement after which report is sent to DCO. **4**	Quarterly Account Settlements. **4**	Monthly Account Settlements. **4**	**4**
Trained Personnel	-All sanctioned posts are filled. No mention of training. - No info on qualifications **2**	-All sanctioned posts are filled. -No mention of level of training. **3**	-All sanctioned posts are filled. -No mention of level of training. **3**	**3**
Timeliness of Disbursement	-Monthly release of salary and non-salary component. -No delays in fund release. **4**	-Quarterly release of non-salary component and monthly release of salary component. - Some delay in release of funds. **3**	-Monthly release of salary and quarterly release of non-salary components. -extensive delays in release of funds. **2**	**3**

BADIN

Criteria	EDO	LHW	PWO	OVERALL RATING
Output-Linked Information	Non-Existent **1**	Non-Existent **1**	Non-Existent **1**	**1**
Computerization	Computerized **4**	Computerized **4**	Manual System **4**	**4**
Frequency of Record-Keeping	-Monthly Account Settlement after which report is sent to DCO. **4**	Quarterly Account Settlements. **4**	Monthly Account Settlements. **4**	**4**
Trained Personnel	-All sanctioned posts are filled. No mention of training. - Requisite qualifications of staff **3**	-All sanctioned posts are filled. -No mention of level of training. **2**	-All sanctioned posts are filled. -No mention of level of training. **2**	**2**
Timeliness of Disbursement	-Monthly release of salary and non-salary component. -No delays in fund release. **4**	Quarterly release of non-salary component and monthly release of salary component. -No delays **4**	-Monthly release of salary and quarterly release of non-salary components. -some delays in release of funds. **3**	**4**

SHIKARPUR

Criteria	EDO	LHW	PWO	OVERALL RATING
Output-Linked Information	Non-Existent **1**	Non-Existent **1**	Non-Existent **1**	**1**
Computerization	Computerized system **4**	Manual System **2**	Manual System **2**	**3**
Frequency of Record-Keeping	Monthly Account Settlement after which report is sent to DCO. **4**	Quarterly Account Settlements. **4**	Monthly Account Settlements. **4**	**4**
Trained Personnel	-All sanctioned posts are filled. No mention of training. - No info on qualifications **3**	-All sanctioned posts are filled. -No mention of level of training. **3**	-All sanctioned posts are filled. -No mention of level of training. **3**	**3**
Timeliness of Disbursement	-Monthly release of salary and non-salary component. -No delays in fund release. **4**	Quarterly release of non-salary component and monthly release of salary component. - Extensive delay in release of funds. **2**	-Monthly release of salary and quarterly release of non-salary components. -extensive delays in release of funds. **2**	**3**

THARPARKAR

Criteria	EDO	PPHI	PWO	OVERALL RATING
Output-Based Information	Non-Existent **1**	Non-Existent **1**	Non-Existent **1**	**1**
Computerization	- Computerized System **4**	- Computerized System **4**	-	**4** (PWO not included)
Frequency of Record-Updating	- Facilities' medicine utilization recorded in MIS forms **3**	- Monthly Account Settlements. **4**	- Monthly Account Settlements. **4**	**4**
Trained Personnel	-	- Executive administration and accounts officer have resigned. No substitute presently available. **2**	-	**3** (EDO and PWO not included)
Timeliness of Disbursement	- Quarterly Release of Funds - No delays in fund release. **4**	-	-	**4** (PPHI and PWO not included)

***Ratings Based on Incomplete Information Not Adequate for Accurate Rating**

UMERKOT

Criteria	EDO	LHW	PWO	PPHI	OVERALL RATING
Output-Linked Information	Non-Existent **1**	Non-Existent **1**	Non-Existent **1**	Non-Existent **1**	**1**
Computerization	- Computerized System **4**	- Computerized System **4**	- Computerized System **4**	-Computerized System **4**	**4**
Frequency of Record-Keeping	-	Monthly Settlement of Accounts **4**	-	- Monthly Settlement of Accounts **4**	**4** (EWO and PWO Not Included)
Trained Personnel	- All sanctioned posts are filled. - Personnel all trained to use computer system. **3**	- Personnel trained for computerized system once 2 years back. - Refresher conducted every year. **4**	- All sanctioned posts are filled. - No mention of level of training. **2**	- Minimum training level for accounts officer is B.Com degree. **2**	**3**
Timeliness of Disbursement	- Quarterly Release of Funds. - No delays in fund release. **4**	- Some delay in release of funds. **3**	- Quarterly release of funds. - No discussion of delays. **3**	-	**3**

GHOTKI

Criteria	EDO	LHW	PWO	OVERALL RATING
Output Linked Information	-	-	Non-Existent **1**	**1** (EDO and LHW not Included)
Computerization	-	-	Manual System **2**	**2** (EDO and LHW not Included)
Frequency of Record-Keeping	-	-	Monthly Account Settlements **4**	**4** (EDO and LHW not Included)
Trained Personnel	-	-	-All sanctioned posts are filled. -No mention of level of training. **3**	**3** (EDO and LHW not Included)
Timeliness of Disbursement	-	-	-Monthly release of salary and quarterly release of non-salary components. -Extensive delay in release of funds. **2**	**2** (EDO and LHW not Included)

***Ratings Based on Incomplete Information Not Adequate for Accurate Rating**

JAMSHORO

Criteria	EDO	LHW	PWO	OVERALL RATING
Output Linked Information	Non-Existent **1**	-	-	**1** (EDO and LHW not Included)
Computerization	Computerized System **4**	-	-	**4** (EDO and LHW not Included)
Frequency of Record-Keeping	Monthly Account Settlement after which report is sent to DCO. **4**	-	-	**4** (EDO and LHW not Included)
Trained Personnel	-All Sanctioned Posts are filled. -Training for computerized system is done. **3**	-	-	**3** (EDO and LHW not Included)
Timeliness of Disbursement	-Quarterly release of both salary and non-salary components. -No delay in release of funds. **4**	-	-	**3** (EDO and LHW not Included)

***Ratings Based on Incomplete Information Not Adequate for Accurate Rating**

ANNEX 6: Client Expenditure on MNCH and Willingness to Pay

BADIN	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	550-1250	350	200-575	30	325
Normal Delivery	4350-5650	850	160	350	500-5000
C-Section	17500	850	17000		3000-6000
Child Illness	550-1250	150	525-875	30	200-650

JAMSHORO	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	650-1250	400	300-500	300	170
Normal Delivery	4000-5050	750	1400-2300	600	500-1250
C-Section	13500-16500	1100	8500-11500	1100	3000-5750
Child Illness	150-3900	625	175-2800	700	100-400

UMERKOT	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	1050	450	475-750	150	275
Normal Delivery	2650-3400	450			1625
C-Section	16750	450			6000
Child Illness	300-1750	450	60-3800	100	400-800

GHOTKI	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	1200	175	550	70	700
Normal Delivery	3700-5200	400			600-1000
C-Section	19750	400	8750	600	1500-2750
Child Illness	200-1700	350	50-850	205	150

THARPARKAR	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	825	275	550	475	0
Normal Delivery	2750-3400	700			400-550
C-Section	25000	700	12500		3000
Child Illness	1100-4500	300	200-2050	250	110-900

KASHMORE	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	1075	250	475	150	325
Normal Delivery	5750	550	1100-2000	800	1250
C-Section	27500	550	13750	800	2800
Child Illness	1250-4000	250	400-1100		550-850

NAWABSHAH	PRIVATE FACILITY	PUBLIC FACILITY	WILLINGNESS TO PAY

	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	1250-1700	350	550	250	325
Normal Delivery	4500-5750	750			1375
C-Section	28250	750	10500	900	3250
Child Illness	900-1250	350	100-300		235

SHIKARPUR	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	1300	450	600	10	280
Normal Delivery	2600-3650	550	1450	600	625
C-Section	12500-20000	900	20000		5000
Child Illness	150-1550	525	100-450	210	300-550

LARKANA	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	500	50	475	180	350
Normal Delivery	2300-3500	1000	2350	375	500
C-Section	25000	1000	9000	250	5000
Child Illness	100-1000	150	100-650	300	100-200

QAMBAR	PRIVATE FACILITY		PUBLIC FACILITY		WILLINGNESS TO PAY
	Expenditure (Rs)	Transport (Rs)	Expenditure (Rs)	Transport (Rs)	
ANC	1400	390	400	150	450
Normal Delivery	2500-4000	1000	1250		575
C-Section	22500	1000	10000	1000	4500
Child Illness	550-1100	125-700	60-500	150	250

Annex 7: Cost Packages for Service Vouchers

Cost Packages for Vouchers			
District	**Services**	**100% Subsidy (Rs.)**	**75% Subsidy (Rs.)**
Badin	ANC	644	483
	Normal Delivery	2580	1935
	C – Section	17250	1294
	Child illness	90	68
Umarkot	ANC	831	632
	Normal Delivery	3025	2269
	C – Section	16750	12563
	Child illness	1990	1493
Shikarpur	ANC	950	713
	Normal Delivery	2288	1716
	C – Section	18125	13594
	Child illness	563	422
Ghotki	ANC	875	656
	Normal Delivery	4450	3338
	C – Section	14250	10688
	Child illness	750	563
Jamshoro	ANC	675	506
	Normal Delivery	3188	2391
	C – Section	12500	9375
	Child illness	1756	1317
Tharparkar	ANC	650	488
	Normal Delivery	3075	2306
	C – Section	18750	14063
	Child illness	1963	1472
Larkana	ANC	488	366
	Normal Delivery	2625	1969
	C – Section	17000	12750
	Child illness	463	347
Qambar	ANC	900	675
	Normal Delivery	2250	1688
	C – Section	16250	12188
	Child illness	553	415
Kashmore	ANC	775	581
	Normal Delivery	3650	2738
	C – Section	20625	15469
	Child illness	1688	1266
Nawabshah	ANC	1013	760
	Normal Delivery	5125	3844
	C – Section	19375	14531

Annex 8: Provider Incentives for Government Staff

District	Antenatal Care		Normal Delivery	
	Private Sector Fee	Incentive @ 50% of Fee	Private Sector Fee	Incentive @ 50% of Fee
Badin	60	30	1750	875
Jamshoro	120	60	1500	750
Umarkot	100	50	1750	875
Ghotki	100	50	2500	1250
Tharparkar	90	45	2375	1188
Kashmore	65	33	1500	750
Nawabshah	250	125	2000	1000
Shikarpur	55	28	1750	875
Larkana	25	13	1950	975
Qambar	175	88	2000	1000
NPPI Districts	94	47	1908	954

Annex 9: Summary of FGDs

<table>
<tr><th colspan="2">Client utilization level/Reasons</th></tr>
<tr><td>ANC</td><td>1. Routine ANC is very rare
2. ANC is sought only incase of any ailment
3. 50 to 60% women seek ANC (LHW)
<u>Reasons</u>:
1. Mostly women seek ANC (ultrasound) to know the fetus representation, sex
And to know either delivery will be complicated or normal
2. To know the HB.</td></tr>
<tr><td>Maternal complication</td><td>1. Almost every woman used to seek care in severe maternal complication (severe headache, excessive vomiting, swelling, severe anemia, bleeding) due to the fear of miscarriage and death fear of mother and fetus.
2. Poor families use to seek care from public sector while well off families use to seek care from private sector.
3. In periphery women also seek care from LHVs.
4. Very poor people and those who are living in kacho remote areas (have not facility of routine transport) mostly rely on home remedies.</td></tr>
<tr><td>Institutional Delivery</td><td>1. Majority of normal deliveries are held at Homes by TBAs, because TBAs are less expensive, highly trusted, they are familiar.
2. Daies facilitate delivery on credit and they also deliver other services like massage of newborn and mother, cloth washing etc.
3. There is emotional support at home.
<u>Institutional delivery</u>
3. All complicated deliveries (prolong labor) conducted at hospitals; very poor people go to civil and well of families use to go to private lady doctors.
4. Very few educated and well of families also use private clinics for normal deliveries.
5. On the basis of ultrasound findings, if doctor suggest delivering at facility then people also use to have institutional delivery.</td></tr>
<tr><td>Family planning</td><td>1. Round About 40% t0 50% pairs are using family planning methods as reported by LHWs.
2. Injections and pills are most common contraceptives.
3. In district Tharparkar there is relatively no concept of birth spacing though few women use to have sterilization after 8-10 children,(Reasons: unawareness, no services is being provided in peripheries)
<u>Reason:</u>
2. Due to over burden of children (large family size)
3. Poverty (cannot afford the expenses of pregnancy and of newborn)
4. People using contraceptives and having sterilization because service is being delivered at free of cost</td></tr>
<tr><td>Immunization</td><td>1. Almost all (100%) people use to have vaccines for their children in order to save them from lethal diseases.
2. Very few people resist because of fever after having vaccine
3. In peripheries service is not provided appropriately (especially in uncovered area (Umerkot/Tharparkar))
Reasons:
1. It is provided at door step and at free of cost
2. To save the children from abnormalities like polio</td></tr>
<tr><td>Acute childhood illness</td><td>1. Health seeking practices are good; parents consider it important to immediately seek care.
<u>Pattern:</u>
2. Initially poor people use to seek care from village based facility and then if baby don't recover then they use to take him/her to private clinics.
3. As reported by LHWs they are providing medicine of Diarrhea, fever and pneumonia at home.
4. In periphery people use self medication in mild diseases. Somewhere pneumonia is parallel treated by home remedies. ORS is given at home every where in case of Diarrhea.
5. well of families directly seek care from private clinics
<table>
<tr><th></th><th>Poor</th><th>Well of</th></tr>
<tr><td>Immediate</td><td>Home remedies/ self medication</td><td>Directly jump to private</td></tr>
<tr><td>Mild</td><td>Village based RHC/BHU</td><td></td></tr>
<tr><td>Severe</td><td>Private clinics</td><td></td></tr>
</table>
</td></tr>
<tr><th colspan="2">Clients reason for non-usage</th></tr>
<tr><td>ANC</td><td>1. It is considered unnecessary to seek care without any ailment.
2. Unavailability of facilities (lady doctor, ultrasound and other diagnostics) at village based BHU/RHC.
3. Poverty is big concern in rural areas; so people don't have enough earnings to go to cities for seeking ANC services.
4. Government Doctor don't oblige at government facility and refer patients to their own private clinics.
5. Mistrust with health system; In government hospital mostly house job doctor get experience on patients.
6. Transport is also big problem as reported by people of periphery.
impossible
7. Unawareness
8. In very few communities practice of Pardah is also a barrier towards ANC seeking</td></tr>
<tr><td>Maternal complication</td><td>1. Unavailability of facilities at village based RHC/BHU (lady doctor, attitude of staff and investigation).
2. Government Doctor don't oblige at government facilities and refer patients to their private clinics.
3. Poverty is big concern in rural areas; so people don't have enough earnings to go to cities for care seeking.
4. Short opening timings.
5. In government hospital mostly house job doctor get experience on patients.
6. Transport is also big problem in periphery.</td></tr>
<tr><td>Delivery</td><td>1. TBAs are low cost, experienced and highly trusted amongst the majority of communities.
<u>Reasons:</u></td></tr>
</table>

	2. Home based delivery is Low cost as compared to Hospital based. 3. Unavailability of lady doctor, LLHV and maternity home at village based or near by public health facility. 4. Mistrust with health system (due to fear of unnecessary C-section and internal examination) 5. Mistrust on public health care providers ("house job doctors only getting experience") 6. On the basis of ultrasound findings and incase of prolong labor deliveries are conducted at facility, poor people utilize public and well of go to private clinic/ maternity homes.
Family planning	1. Unawareness and lack of knowledge 2. It is considered great of God. 3. Adverse effect of **(especially of pills)** like excessive bleeding and over weight. 4. Failure of using contraceptives 5. Desire of male child 6. Few mothers are afraid of infertility due to the usage of contraceptive, which may cause the second marriage of their husbands.
Immunization	1. Inappropriate provision of services in peripheries, especially in uncovered areas 2. children/newborn falls in fever after getting vaccination
Acute childhood illness	1. Unavailability of better facilities (irregular staff, short and low quality medicine) at public Hospitals and less attention of staff. 2. Poverty 3. Transport is also big problem in periphery. 4. Distance of health facilities (as reported in periphery) 5. short opening timings
Provider preference of client/ Reason	
ANC	1. Private Providers (24 hours availability of trained lady doctors and other facilities like Ultrasound) 2. Quality care (prescription of quality medicine and attention of doctors, proper care) 3. Patient recovers his/her health quickly at private practitioner. 4. Diagnose, prescription and skills of doctors are trusted.
Maternal complication	1. Private Providers (24 hours availability of trained lady doctors and other facilities like Ultrasound) 2. Quality care (prescription of quality medicine and attention of doctors, proper care) 3. Patient recovers his/her health quickly at private practitioner. 4. Diagnose, prescription and skills of doctors are trusted. 5. Government Doctor don't oblige at government facility and refer patients to their own private clinics. 6. In government hospital mostly house job doctors get experience on patients. 7. "In civil hospital house job doctor even cannot prick canola". 8. short opening timings 9. Transport is also big problem as reported by people of periphery.
Delivery	1. Institutional deliveries (mainly conducted in case of complications) preferred at private sector due to quality care and availability of facilities to manage unexpected emergency. 2. 24 hours service 3. Existing pattern is of home Based delivery because of low cost, trust on Dais skills, they are familiar also provide other services; like massage, clothes washing etc
Family planning	1. LHWs; for providing different contraceptives at door to door at free of cost. 2. Public Health facilities for sterilization which is free of cost.
Immunization	1. Public health facilities due to home based delivery of service at free of cost.
Acute childhood illness	1. Private Providers (24 hours availability of doctor and other facilities like X-ray) 2. Quality care (prescription of quality medicine and attention of qualified doctors, cleanness at facility) 3. Patients recover quickly. 4. Trust on private Doctors diagnosis. 5. Poor people seek care from government facilities because of low cost treatment.
CCT or Voucher/ Reasons	
	1. Voucher is preferred because it is prepaid so there is no chance of corruption. 2. It should be reserved for acute childhood illness as said by majority of mother. 3. It should be reserved for Delivery (Fathers from almost all districts)