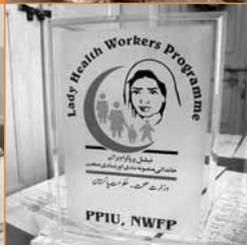


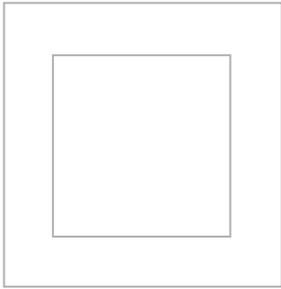
Lady Health Worker Programme

External Evaluation of the
National Programme for
Family Planning and
Primary Health Care

Summary of Results

Oxford Policy Management
August 2009



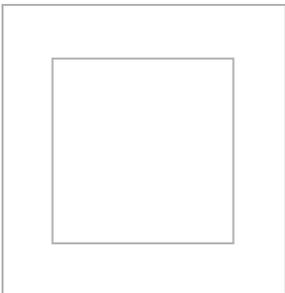


Lady Health Worker Programme

*External Evaluation of the
National Programme for
Family Planning and
Primary Health Care*

Summary of Results

**Oxford Policy Management
October 2009**



Reports from this Evaluation

Summary of Results

Management Review

Systems Review

Financial and Economic Analysis

Quantitative Survey Report

Punjab Survey Report

Sindh Survey Report

NWFP Survey Report

Balochistan Survey Report

AJK/FANA Survey Report

Lady Health Worker Study on Socio-Economic Benefits and Experiences

Cover photo: Mother and child in village, clients of the Lady Health Worker

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The core evaluation team included: Simon Hunt (Team Leader); Shafique Arif (Survey Manager); Dr Imtiaz Malang, Dr Tehzeeb Zulfiqar, Philippa Wood (Management and Systems Review); Rana Asad Amin, Mark Essex, Georgina Rawle (Financial Experts); Sarah Javeed, Emily Wylde (Qualitative Research); Patrick Ward (Technical Team Leader); Alex Hurrell and Luca Pellerano (Survey Design and Analysis); Juan Muñoz (Sample Design); Dr Laila Salim (Quantitative Survey Design); Iftikhar Cheema, Alamgir Morthali (Data Entry and Data Analysis). A large team of supervisors, enumerators and others worked on the survey.

The Management and Systems Review was conducted by Philippa Wood, Dr Tehzeeb Zulfiqar and Dr Imtiaz Malang with support from Mr Fareed Khokhar. Mr Fareed Khokhar and Clara Picanyol also provided invaluable advice on the Financial and Economic Analysis.

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Acronyms

ADB	Asian Development Bank
ADC	Assistant District Coordinator
AGPR	Accountant General Pakistan Revenues
AJK	Azad Jammu and Kashmir
APC	Assistant Provincial Coordinator
BHU	Basic Health Unit
CIDA	Canadian International Development Agency
CSD	Child Survival Development
CPR	Contraceptive Prevalence Rate
DAO	District Accounts Office
DC	District Coordinator
DFID	Department for International Development (UK)
DHO	District Health Officer
DoH	Department of Health
DPIU	District Programme Implementation Unit
DTO	District Treasury Office
EDO-H	Executive District Officer of Health
EPI	Expanded Programme of Immunisation
FANA	Federally Administered Northern Areas
FATA	Federally Administered Tribal Areas
FLCF	First Level Care Facility
FPO	Field Programme Officer
FPIU	Federal Programme Implementation Unit
FTA	Fixed Travel Allowance
FTO	Federal Treasury Office
FY	Financial Year
GoP	Government of Pakistan
HMIS	Health Management Information System
ICT	Islamabad Capital Territory
KPI	Key Performance Indicators
LHS	Lady Health Supervisor
LHW	Lady Health Worker
LHWP	Lady Health Worker Programme
LMIS	Logistic Management Information system

MCH	Mother and Child Health
MNCH	Maternal and Neo-natal Health
MIS	Management Information System
MoH	Ministry of Health
MoF	Ministry of Finance
NCHD	National Commission for Human Development
NGO	Non-Governmental Organisation
NIDs	National Immunisation Days
NIPS	National Institute of Population Studies
NP FP&PHC	National Programme of Family Planning and Primary Health Care
NWFP	North Western Frontier Province
OBSI	Optimal Birth Spacing Interval
PC	Provincial Coordinator
PC-1	Planning Commission 1
PSDP	Public Sector Development Programme
PHC	Primary Health Care
PLA	Personal Ledger Accounts
POL	Petrol, Oil and Lubrication
PPIU	Provincial Programme Implementation Unit
PSU	Primary Sampling Unit
RHC	Rural Health Centre
RHP	Reproductive Health Project
RPIU	Regional Programme Implementation Unit
Rs.	Pakistani Rupees
SNIDs	Sub-National Immunization Days
SoEs	Statements of Expenditure
TOT	Training of Trainers
TSIS	Training System Information System
TAMA	Technical Assistance Management Agency
UNICEF	United Nations International Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WHP	Women's Health Project

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1 Background to the Evaluation

This short report provides a summary of the key findings of the 4th Evaluation of the Lady Health Worker Programme.

This 4th Evaluation of the Lady Health Worker Programme took place over a two year period between December 2007 and November 2009, and follows the 3rd Evaluation that was undertaken 2000-2002¹.

In order to ensure **comparability**, the scope and methods used in the 4th Evaluation were similar to those that were used in the 3rd Evaluation. The scope of the evaluation was extended and no major components were withdrawn. The evaluation methodologies and instruments remained very largely unchanged.

The **purpose** of the 4th Evaluation was to explore whether the Programme had during the period covered by the PC-1² (July 2003-June2008):

- provided the level of services that were planned:
 - to quality standards;
 - to the agreed level of coverage;
 - including the poor;
 - with an impact on health; and
 - at a reasonable cost;
- improved performance since the 3rd Evaluation (2000); and
- had implemented the organisational developments outlined in the Strategic Plan (2003–11) and the PC-1 (2003–08).

The **objectives** of the 4th Evaluation were to:

- provide the MoH and other stakeholders with accurate, credible and usable information on the performance of the LHWP;
- explore the determinants of performance;
- document the socio-economic benefits to the LHWs and the LHSs, their families and communities of working with the programme; and
- to provide findings and options that would help the Programme to further strengthen its performance.

To deliver these objectives, the key **outputs** of the evaluation were:

- a sample survey data set based on six quantitative surveys: the District Programme Implementation Unit, the health facility, LHW, LHS, households and communities.

¹ The most recent independent evaluation of the LHW P was commissioned by the Ministry of Health in 1999, and implemented by Oxford Policy Management. This was the 3rd independent LHW Programme Evaluation. The key conclusion of this evaluation was that the LHWP had managed to buck the international and national trends of poor performing Community Health Worker Programmes and was, in fact, providing a service that had an impact on key health indicators.

² The core planning document of the Programme.

The surveys were based on the questionnaires of the 3rd Evaluation to ensure comparability of results;³

- intensive qualitative studies;
- reviews of management, organisational systems, programme expenditure and unit costs;
- workshops conducted at the provincial and national levels; and
- eleven reports providing:
 - an overall summary of the findings;
 - five individual reports on the main areas of investigation (the quantitative survey report; a study of the employment impact of the Programme; the systems review; the management review, and the financial and economic report); and
 - five provincial summaries.

This short report provides a summary of the results in the five main areas of investigation.

³ The quantitative survey covered 5,752 households, 554 LHWs and their supervisors and health facilities (FLCFS). It was a nationally representative sample. The survey was conducted between July and November 2008.

2 Coverage; Service Levels; the Poor; Health Impact – the Findings of the Quantitative Report

2.1 Data and Methodology:

The survey covered 5,752 households and 554 LHWs. It was a **nationally representative sample**. The sample used five geographic strata: Punjab, Sindh, NWFP, Balochistan and AJK/FANA. Sampling weights were used to make representative estimates. It included households in areas already served by the LHWP in 2000, as well as households in areas to which the programme has expanded since then. A comparison group of unserved households were also surveyed, randomly selected from unserved areas within the same 60 districts. Separate interviews were conducted with 298 Lady Health Supervisors (LHSs), selected medical staff at 335 health facilities (FLCFs), 572 community groups and the District Programme Implementation Units which managed the selected LHWs.

2.2 LHW characteristics

A comparison of the LHWs sampled in 2008, compared with 2000, shows that the **demographic and educational characteristics** of LHWs have changed only slightly since the last evaluation, despite the expansion in numbers. They are, on average, a little older and somewhat more likely to have been educated to intermediate level or above in 2008, although most are still at “matriculation” level or below.

2.3 Programme inputs

LHWs’ **clinical knowledge** has improved since the 3rd Evaluation, but there is still room for improvement. The average score has increased from 69 to 74, and average scores have improved significantly in all of the provinces. There has been a noticeable improvement in LHW knowledge of the EPI vaccination schedule. While many gave correct answers to basic questions, an appreciable fraction gave incorrect answers in areas that are central to their work. Around one third failed to identify a number of life-threatening conditions. Only 9 per cent were able to state the correct doses of antibiotics or Chloroquine to be given. Answers to case-based questions showed only a slight improvement. The composite knowledge score increased from 69 per cent in 2000 to 74 per cent in 2008, with little variation between rural and urban areas. The area with lowest score was Balochistan, where it was 10 per cent lower than the overall mean.

Training continues to be carried out reliably for most LHWs. All LHWs have received the full-time three-month basic training course, and 96 per cent have received at least one refresher training course in the last year, most frequently Counselling Cards or Child Health courses.

There have been some changes in the timeliness of **payments** to LHWs. Compared with 2000, far fewer waited over three months to be paid, although it appears that a smaller proportion had been paid in the last month. Almost 11 per cent of LHWs received less money in their salary than they expected, although this was less than in 2000, when it was 20 per cent. Most of them did not know the reason for this deduction.

The survey also looked at three areas of Programme support that are essential for LHWs to undertake their job effectively: **medical supplies, equipment and clinical services** provided by the health facilities. It showed substantial problems in these areas. The

continuity of problems documented, compared with 2000, suggests that these areas need renewed focus, both within the Programme and within the health system generally.

An examination of the **medicines** held in stock by LHWs shows that many continue to be seriously undersupplied. However, it seems LHWs are more likely to have a given item in stock in 2008, and much less likely to have been out of stock for over three months. Stock-outs are therefore continuing for a shorter period than in 2000. Sindh has the largest problem with stock-outs enduring for two months or more. As in the 3rd Evaluation, expired stock was a less common problem. Interviews at the LHWs' health facilities confirmed these supply problems and showed that they were often a consequence of non-receipt of the requested items from the DPIU. Some LHWs were also found to lack some basic items of equipment: around one third have functional weighing scale, for example.

There has been an improvement in the level of **supervision** of LHWs – some 78 per cent had had a supervision meeting in the preceding month. A similar proportion of LHWs reported that their supervisors used a checklist in the last supervision meeting. LHSs have, on average, fewer LHWs to supervise than in 2000, making proper supervision easier. They have better access to transport, although a significant number still have no access to a Programme vehicle, or have not received all the POL that they are due. LHSs are themselves better supervised by the Programme, with 93 per cent reporting a supervision meeting within the last month. LHSs also demonstrate an improvement in their average levels of knowledge, compared with 2000, increasing their score from 74 to 78. They are being trained systematically, and have seen improvements in the regularity of their pay. The districts generally provide support to the LHWP too, in terms of supervision time and also making facilities available to LHWs.

2.4 Programme outputs

There are now close to **90,000 LHWs** nationwide. Each is supposed to serve around 1,000 individuals. The survey found that the mean number of people registered per LHW was 919, a drop from 980 in 2000. Very few registered households were found to be non-existent (less than 1 per cent), while some 6 per cent of surveyed households were not aware of being registered. This represents an improvement over the 3rd Evaluation, which found that 13 per cent were unaware of being registered. The number of households per LHW shows considerable variation though, with 18 per cent having fewer than 100 households, compared with the norm of 200 per LHW; 2 per cent have more than 200.

However, despite covering fewer people, the LHWs are **working 50 percent longer hours** than they were in 2000. They report an average of 30 hours per week of work, compared with 20 in 2000. They are providing a wide range of services to a higher proportion of their clients than they were in 2000.

From the household perspective, 85 per cent report having had a visit from the LHW within the past three months, which indicates a substantial minority (15 per cent) who are not in regular contact. Community group reports on LHW performance are almost all improved, relative to 2000.

LHWs play an important role in the provision of **preventive and promotive** health care services. The level of provision varies with the type of service. Many services reach around half of eligible clients, but some have higher coverage: around two thirds of households report that the LHW has undertaken hygiene promotion, and vaccination promotion has reached three quarters of children under three years of age. In contrast, early visits to newborns (within 24 hours) and growth monitoring reach far fewer clients.

There have been some **substantial improvements in the level of service delivery** since the 3rd Evaluation, particularly for family planning services. The mean LHW performance score, which measures the success with which the LHW is delivering all the services required of her, given the size and demographic breakdown of her registered population, has increased from 42 to 52.

The simultaneous increase in the level of service provision to clients and large increase in the coverage of the programme should be recognised as a significant achievement.

LHWs remain an important source of **curative consultations** for the population they serve. Of all those who consult with regard to an illness, 17 per cent report consulting the LHW, usually as the first point of contact. They are particularly important for rural women, though the gap between rural and urban use has narrowed since 2000. Utilisation by adults appears to have declined since 2000, but this is not the case for children. Many LHWs continue to treat emergency cases, although a slightly higher proportion says that they have never seen an emergency compared with the figure for 2000.

For those who did not consult the LHW (for children under five with diarrhoea), the main reason given was that the consultation was not necessary (31 per cent), which compares favourably with the 2000 results, where the main factor was that the LHW was not available or helpful (37 per cent). It appears however that a small proportion of LHWs appear to be **charging for consultations**; 9 per cent of consultations for diarrhoea were charged, according to households, and at a rate that exceeded all other providers, other than private hospitals/clinics.

While a clinical assessment of the treatment of patients by LHWs was not undertaken in this study, reports of their treatment of children with diarrhoea are encouraging. They compare particularly, favourably with other community-based care providers such as hakeems and homeopaths. LHWs continue to act as a link between health facilities and their communities.

Generally, the socioeconomic status of households in the survey has increased since 2000, both for households in old and new catchment areas. The Programme has expanded to serve populations that are, on average, somewhat **more disadvantaged** than those being served at the time of the last evaluation. This is an important achievement. However, the population that remains **unserved is significantly more disadvantaged** still, and efforts must be made to cover those areas.

2.5 Programme impact

Trends in the main target health indicators identified in the previous PC-1 were assessed, excepting mortality. Most show a **substantial improvement**. The improvements in **tetanus toxoid coverage** (five or more doses) and **attended deliveries** are particularly significant, with increases from 14 to 31 per cent and 27 to 48 per cent coverage, respectively. The proportion of **children fully immunised** has increased from 57 to 68 per cent. Measures of **exclusive breastfeeding** have also improved, although this may simply be due to expansion into populations that are poorer and more rural. The improvement in the contraceptive prevalence rate is small and statistically insignificant, having increased by only 1 percentage point. The improvements, even when they are substantial, are not usually as large as had been intended in the most recent PC-1, even over the longer period of 2000 to 2008. These improvements have taken place as the programme expanded to cover more disadvantaged populations, however, and are no doubt of considerable importance to the

health of the population. The Programme might want to consider what would be realistic levels of change for these indicators when developing the next PC-1.

A number of other important indicators have also improved. There is an increased awareness amongst mothers of **how to prepare ORS**. There is a substantial increase in those receiving at least one **antenatal consultation**, from 58 per cent to 76 per cent. However, some other areas have stagnated, or even **decreased**. Knowledge by mothers of at least one way in which to prevent diarrhoea has reduced, and growth monitoring services continue to have a limited coverage. In relation to the national average, as indicated by the most recent DHS, the served households are not better in relation to some health promotion behaviours. Some 9 per cent of households clean their water before drinking, similar to the national average.

Although the served population has better health measures in 2008 compared with 2000, this is not necessarily due to the Programme. Trends in the national population as a whole, the expansion of the programme into new areas, and differences in the populations surveyed might all have had an effect on the differences observed. The served population also has substantially better health status measures than the unserved population for almost all measures, with the exception of some indicators on breastfeeding and weaning. This also might not be due to the Programme, since the unserved population is disadvantaged on many dimensions. Two **statistical techniques** were used to try to assess the impact that can reliably be attributed to the programme, comparing served with unserved areas.

Regression analysis was used to adjust for observable differences between served and unserved households, other than the intervention itself. In addition, **Propensity Score Matching** was used to compare outcomes for served and unserved households with otherwise similar characteristics. Both techniques produced similar results, which suggest that the findings are reasonably robust.

The results of this multivariate analysis confirm that the LHWP has had **a positive impact**, particularly in relation to family planning and antenatal care. Comparable served households are 11 percentage points more likely to be using a modern FP method. Women who had a birth in the 3 years before the survey are 13 percentage points more likely to have had tetanus toxoid during their pregnancy, and neo-natal check-ups are 15 percentage points more likely to have occurred. Children under three years of age are 15 percentage points more likely to be fully immunised.

Some of these effects are likely to be linked directly to LHW activities, as the LHW is a main provider of some of these services, providing, for example, 60 per cent of pills and condoms.

On the other hand, the **impact on health knowledge and sanitation has been weak**:

- There is no evidence of a positive effect on breastfeeding – in fact, there appears to be even a small negative relationship
- There is no evidence of an increase in skilled attendance at delivery
- Limited effects on growth monitoring
- No evidence at all on the incidence of diarrhoea and respiratory infections in children.

Some of these areas present more difficult behavioural issues, although it was found that high performing LHWs had an impact on a number of them, suggesting there is scope for improvements if performance can be strengthened and the issues are given sufficient attention.

By dividing served and unserved households into quintiles, based on consumption, we were also able to analyse the differential impact of the LHWP on better off and poorer households. In general, the analysis found that **effects were larger for poorer households**, especially in relation to maternal and neo-natal health practices, immunisation and growth monitoring. However, knowledge-based interventions, such as treatment of diarrhoeal diseases, were more effective amongst better-off households. The same applied for some more demand-driven services, such as family planning.

2.6 LHW performance

The mean LHW performance score, which measures the extent to which key preventive and promotive services have been delivered to clients, has increased from 42 to 52. Looking at 'comparable' LHWs (that is, ones serving in the same areas as in the 2000 survey), the increase, to 55, is even higher. The **mean performance score has increased in all provinces** since the 3rd Evaluation. There remains **a substantial group of under-performing LHWs**, however. Effective supervision and good district management practices are important in improving LHW levels of service delivery.

For LHWs, performance appears to be correlated across different services, indicating that specialisation is not taking place, and **high performing LHWs are likely to deliver relatively high levels of all services**. This is consistent with the findings of the 3rd Evaluation.

The evaluation investigated the determinants of this performance. **A number of factors are positively linked to performance:**

- LHW-specific factors – experience, hours worked, training and supervision received
- District-level factors – the proportion of time the Executive District Officer-Health [EDO-H] spends working on LHWP and the total number of LHWs working in the district,
- Community factors – such as the existence of women's health committees.

However, some factors that might be expected to be significant were not found to be so, including LHWs having another paid job, non-residency, drug availability, LHW supervisors having access to vehicles and the knowledge score of the LHW.

Relating the LHW performance index to household knowledge, practice, and health outcome measures leads to the clear conclusion that better LHW performance has a positive effect on most of the health practice indicators considered in the study. **LHWs in the top distribution of the performance score make an additional difference to many of the Programme's impacts**. The effect of the knowledge score is more concentrated, particularly focused on the case of health knowledge outcomes and the proper treatment of basic illnesses.

2.7 Conclusions from the Survey

The Programme has expanded substantially since 2000, at the same time as facing the challenges due to decentralisation. **As it has expanded, it has penetrated into more rural and less advantaged areas, although it is still not reaching the most disadvantaged areas. Coverage rates, work levels, knowledge and delivery of services have generally improved.**

LHWs play a substantial role in preventive and promotive care, and in delivering some of the basic curative care in their communities, as well as providing a link to emergency and referral care. Even taking into account other differences between served and unserved populations, modern contraceptive use is more prevalent in served areas, pregnant women are significantly more likely to receive tetanus toxoid vaccination, and children in served areas are significantly more likely to be fully vaccinated. The LHWs are also appreciated by the communities in which they are based. There are a number of areas where the Programme, as a whole, is not having the intended impact, however, including in hygiene and sanitation behaviour, breastfeeding, growth monitoring and attendance at deliveries. Additional attention by the programme to the performance of LHWs might bring substantial health benefits in these areas.

The Programme has managed to introduce a number of improvements that were identified as important in the 3rd evaluation. It has improved supervision and has increased average levels of knowledge. The level of service delivery has increased. However, there remain a group of underperforming LHWs whose working practices must be improved, and gaps in LHWs' knowledge. There remain significant failures in supply systems, both in medicines and equipment. These are issues that must still be addressed going forwards.

3 Lady Health Workers – the Benefits of Employment in the Programme

3.1 Purpose

Over many years questions have been raised about the wider socio-economic and gender impact of LHWs. For example these questions include: does the presence of LHWs in a community act as a spur to other women to seek and take up employment ?; does employment in the LHW programme give LHWs more influence in the community?; does the information and example provided LHWs enable women to have a greater role in family and community decision making ?

The purpose in this part of the wider LHW Evaluation was to conduct **a small study** that would start to shed some light on these types of questions and on the overall experience of being an LHW and LHS and its wider impact on their families, on their communities and on women's empowerment in their communities.

3.2 Methodology

Whilst these questions are interesting and important to ask, they are difficult to answer. There are complex methodological debates in this field both about what to measure and how to measure it.

Our entry point for the study is the notion that women's can have a greater say in the decisions affecting their own lives when they are "**empowered**". Empowerment being defined as "the expansion in people's ability to make strategic life choices (..in a context..) where this ability was previously denied to them". (Kabeer, 2008)

In terms of measuring empowerment then key areas to examine would include influence or empowerment about decisions to take up employment; whether that employment was in or outside the family home; decision making power over how a family spends its time and money eg. on schooling, on healthcare; on food items; and on freedom of movement.

The evaluation used the main survey instruments (household survey, LHW survey, LHS survey) and a separate and small qualitative survey as the main sources of data for the study.

3.3 Results

The results of the study were organised in three main areas:

1. Responsibilities for decision making
2. Impact on income and earnings.
3. Voice (e.g. speaking if a woman disagreed with her husband)

Three main patterns of decision making are interesting to note: decisions to take up work; decisions over women's own earnings; and other household decisions.

Decisions to take up work: The qualitative survey explored the extent to which LHWs and other working women were able to exercise control over the decision to take up their current job. After grouping the interviews and Focus Group Discussions, based on each of the different employment categories, some interesting patterns emerged. Among the group of LHWs, there appeared to be a positive relationship between decision-making power and their level of experience. While almost no junior LHWs exercised control over the decision to work, senior LHWs were far more likely to make the decision on their own or jointly with their husband or another family member. This distinction is even more apparent among LHSs, roughly two thirds of whom make the decision to work either on their own or jointly with someone else.

Decisions to over women's own earnings: Both LHWs and women in their communities who benefit from LHW services were asked about who was responsible for deciding how to spend their earnings. Overall, LHWs are more likely to make an independent decision on how to spend their salaries compared with beneficiary women who work away from home, but considerably less likely than beneficiary women who work in the home. This can be partially explained by the increased likelihood of women who work in the home being the household head, which would suggest an absence of an adult male with whom to compete for decision-making.

Other household decisions: With the exception of decisions relating to borrowing and decisions that relate to children's wedding plans, LHWs appear to be more likely than other beneficiary women to be **the sole decision-makers** in all of these other household decisions examined (e.g. whether or not to have another child; matters relating to children's education; use of family planning methods; household budget; household lending; health seeking behaviour) apart from those decisions concerning the marriage of children.

By the same token, LHWs are also far less likely than beneficiary women to have their husbands be the sole decision-maker across all of the issues, and also appear less likely than beneficiary women to leave decision-making responsibilities to their father- or mother-in-law, particularly with regard to financial issues, visiting relatives or matters relating to their children's health.

Unsurprisingly, LHWs are considerably more likely than other women to make decisions about whether to have another child, the use of family planning methods, and whether to consult someone if a child is sick. They are also significantly more likely to make decisions about visiting friends or relatives, and slightly more likely to make decisions on economic issues, such as those relating to the household budget and paying for their children's medical costs.

Impact of Earnings: The qualitative research indicates that having a job – and, hence, earning money – does increase decision-making power, but this appears to be limited to certain decisions, such as household expenditures and children's education. There was, however, a wide range of responses on the extent to which working or earning more money influenced decision-making ability. While many said that it made no difference at all, others said that the more a more money women earned, the more power they had:

'have more income', 'women have money in their hands', 'women become more powerful because of her earning', 'they become economically independent' (FGD with women working in the home, AJK).

Men also said that their wives asserted themselves more and gave their opinion in family decisions:

She is more confident and wants to be part of household decision-making (Husband of woman working outside the home, Muzaffarabad, Punjab).

A significant number of women felt that the level of a woman's income does not influence her decision-making role. Men were the main decision-makers, and women were only consulted; the male members made the final decision.

Respondents were of the opinion that women who work outside the home have a stronger influence in decision-making, as they have more exposure and the family also thinks that a woman who works outside the home is more confident and aware of her surroundings and social etiquettes. Certain professions provided greater respect and dignity to women, such as that of a doctor, or teacher, or another official type of work.

Also, women's role has changed over time and people are more receptive to the idea of female employment and the productive role women can play at home, and also at the community level. Women said that they themselves could feel that change in people's attitudes. Ten years ago, even their family members were not willing to trust them, while now there is much more flexibility in their behaviour. Only 14 women in the in-depth interviews said that there was no change in the role of women (12 from Punjab, and 2 from NWFP):

In the past I could not even go outside the house, but now this is my own decision (LHW, Mardan, NWFP).

Voice: As part of the qualitative survey, all women were also asked whether they thought they should speak if they disagreed with their husband. This is one interesting measure of empowerment through what is often referred to as 'voice'.

Overall, **LHWs are more likely to stand up to their husband compared with all working and non-working beneficiaries.** Over 50% of LHWs said they should speak up compared with 32% of women working in the home, 38% of women working outside the home, and only 27% of women who are not working. Among LHWs in the 15–24 age bracket, this was even higher at 62%, as was the percentage for LHWs with university-level educational backgrounds.

As with decision-making ability in the previous section, the impacts of employment on beneficiary women's empowerment appear to vary greatly depending on socio-economic factors, education, age, and whether women are working in or outside the home.

Other important findings: LHWs and LHSs often find negative community perceptions of LHWs and LHSs, although with the passage of time these negative perceptions often change into positive perceptions.

There are marked impacts in the positive empowerment effects of employment for rich and poor women, it will be especially important to better understand the reasons behind poor women's lower bargaining power.

3.4 Conclusions

Although the limited nature of this study suggests that conclusions should be interpreted as indicative rather than definitive, that **the Programme is having a positive effect on the well-being and empowerment of women it employs.** LHWs are relatively more empowered compared with other working women.

Further research would be required to better understand what, in particular, it is about the Programme that gives these results, but initial hypotheses might be that the explicit focus on training, the visible nature of the work, and the high degree of mobility and self-confidence that this interaction with the community requires all serve to empower women in ways that other work does not.

4 The Systems Review

4.1 Purpose

The Programme's management and control of systems are important in ensuring the provision of services to high standards. They should help harness the energy and attention of staff in the efficient pursuit of the organisation's goals. Talented hardworking people can produce results in spite of poor systems, but good systems provide incentives for all staff to do a better job, and maximise their capacity to spend their time on the things that matter most and not being distracted or impeded by unnecessary administrative concerns.

The Programme's systems being reviewed are: recruitment, training and development of LHWs; payment of LHW stipends; logistics; performance monitoring; transportation and management information. The criteria for selection of these systems were based on: being integral to the purpose of the LHWP; being implemented throughout the whole Programme organisation; and the evaluators being able to provide an indication of the level of performance.

4.2 Methodology

For each of these seven key systems the review is divided into two parts. The first part involves a description of the system; the second part involves an assessment of that system.

The information and data used came from three main sources: the quantitative sample surveys; the Programme's information databases; and from key informant interviews.

4.3 Results

The key findings for each of the systems assessments are presented below:

4.3.1 Selection and recruitment system

- **Compliance with selection criteria** The Programme has a core organisational competence in the selection of LHWs. Against many odds, it has managed to maintain compliance with selection criteria – the major exception being Sindh, with 11% non-residency;
- **Insufficient budget for 100,000 fully-funded LHWs** The budget forecast (FYs 2003/04–2007/08) was based on funding for 100,000 LHWs and 4,000 LHSs. However, by the end of this period the Programme had only received 87% of their allocated funds. Each year, the budget allocation and releases were less than the Programme requested;
- **Catchment areas** There appears to be a problem with providing a catchment area with a population of 1,000 people for LHWs to register. The average number of people registered has fallen from 980 in 2000 to 919 in 2008. This could be due to saturation of coverage in areas where the Programme is already established: 9% have 700, or fewer, registered clients;
- **Ratio of LHS to LHW** The target ratio of supervisors to LHWs was 1:25. The ratio in 2008 was 1:23, down from 1:27 in 2000. There was delayed recruitment of LHSs.

Delayed recruitment resulted in lower levels of supervision at the time that newly recruited LHWs started working; and

- **Community acceptance** The selection system is recruiting LHWs who are acceptable to their communities. The results from the Community Survey were positive, with over 90% of respondents saying that there had been improvements in health due to the LHWs' work; that LHWs had generally improved people's lives in the community, and that women were usually respected after becoming LHWs.

4.3.2 Training system

- **Professional knowledge and skills** The LHWP has continued to invest in the professional knowledge and skills of the LHW. The knowledge score of the LHW and her supervisor has increased since 2000. The average score in the Knowledge Test for LHWs was 74% and, for LHSs, 78%. Knowledge scores were higher in NWFP and AJK/FANA for both LHWs and LHSs;
- **Programme target** The Programme target was for 90% of LHWs to score over 80% in the Knowledge Test. There are now 31% of LHWs who scored over 80% in the Knowledge Test, compared with 16% in 2000. Another Programme target was that all LHWs have a knowledge score of over 71%. Two thirds of LHWs achieved this target;
- **Low levels of knowledge** However, 11% of LHWs scored less than 60% in the Knowledge Test, and LHWs in Balochistan had considerably less knowledge, with an average score of only 64%. The Programme needs to address this issue, as lack of knowledge is a risk for LHW clients;
- **Contributing factors** Duration of service and level of education contribute to the level of LHW knowledge. Knowledge is also at a higher level amongst those LHWs who received training at their last monthly meeting at the health facility, and for those who attended the food and nutrition training in the past year. However, a significant improvement is gained through attending Counselling Card refresher training. Knowledge scores of LHWs who have the counselling card manuals have considerably higher knowledge scores;
- **Refresher training** This can make a significant difference to knowledge and performance, depending on the topics and the training materials. Counselling Card refresher training is improving knowledge and the Revised MIS tools refresher training significantly improves performance;
- **Trainer training** Essentially, the system has remained unchanged during this PC-1. It continued to deliver core training of LHWs and LHSs using the trainer training model;
- **Training system** The training provided for the expansion of the Programme between 2003 and 2008 was managed in a similar manner to previous expansions. The system increased its throughput with a substantial programme of refresher training;
- **Quality of training** The quality of training will become more important as the Programme expands into difficult areas. It has to improve in order to substitute for the years' of experience and education of LHWs. The Programme needs motivated trainers who are prepared to improve the quality of their training. The solution will need to have both incentives and sanctions;
- **Cost of training** Training expenditure is low, at just 3.76% of the total expenditure.

- **Curriculum development** While the core system of delivery through trainer training remains, there has been conservative curriculum development reflected in the core curriculum and the refresher training modules;
- **Keeping the Programme focus on the role of the LHW and scope of services** The Programme mitigates the risk of enthusiastic stakeholders driving change by employing an incremental approach where the change is clearly tied to the role of the LHW and the services she provides (refer to Management Review);
- **Unapproved training programmes** LHWs have attended unapproved training programmes, causing a risk to quality control and to the perception of the role of the LHW, both by the community and herself;
- **Contracting out the management of the Basic Health Units** This has to lead to cases of trainers not being made available by the contractor for the trainer training for the facility staff. There have also been examples of where facility staff members were no longer permitted to train LHWs. Some of these issues have been resolved in some districts but the experience does show up the risks of “dis-integrating” the LHWP from the core health service provision;
- **Contributing role of development partners** Amongst development partners, the Programme’s training system appears to have the strongest relationship with UNICEF and UNFPA, both working in areas of maternal, child health, and family planning. In addition to supporting pilots and refresher trainings, these partners also sponsor two long-term consultants to the Programme, who have been influential in the development and maintenance of the integrity of the training system; and
- **Risk to the training system** There is some anxiety that the training and the inspection system are very reliant on the dedication of these two long-term consultants, and that the Programme has not succeeded (and with frequent transfers of staff, is unlikely to succeed) in developing their successors. The view of the evaluation team is that the main risk is not to the training system, *per se*, as the system is not complex. Rather, the risk is in losing the long-term advisors, who act to protect the integrity of the system. This risk could be mitigated by stronger Programme leadership; the functioning of the oversight and management committees, who would support the Programme’s values and strategic directions; and by retaining senior managers on the merit of their performance.⁴

4.3.3 Logistics management system

- **The supply system for medicines is performing poorly** The Programme did not succeed in achieving its performance targets. There is a significant number of LHWs who have been without various medicines for over two months. In addition, there is a shortage of non-drug items. The regular supply of drugs and contraceptives is important for the performance of the LHW. The main cause of lack of supply is management of procurement and the level of funding;
- **Logistics expertise** The management of logistics requires expertise and management attention. Core elements of the system are the responsibility of the Ministry of Health (procurement and quality control, and budget approval). The Programme is primarily responsible for estimating demand and for distribution. While there are some dedicated logistics officers, expertise in logistics is reportedly low in all functions. The planned review and re-engineering of the logistics system did not take place;

⁴ This is explored further in the Management Review, August 2009.

- **Delays caused by the procurement process** This places stress on the logistics system. Higher priority and attention need to be given to the timetable for procurement, or for holding a higher level of supplies in the system to prevent stock-outs;
- **Insufficient procurement** There were insufficient funds spent for each LHW to have her full supply of drugs and contraceptives. This is true, even though there were fewer LHWs working than planned. Drugs and contraceptives were planned to be 24% of the budget. Actual expenditure resulted in their being only 18%. The PC-1 specifies the monthly requirement of the LHW for drugs and medicines. No item was procured to the quantity forecast per LHW in the PC-1;
- **Distribution** The Programme puts a great deal of effort into managing the transportation of logistics, both from the PPIUs to the DPIUs and from the DPIUs to the facilities;
- **Training** The logistics manual and the accompanying training are positive initiatives. However, training probably only has a shelf life of one year due to turnover of management and logistics staff;
- **Warehousing** Around 15% of districts reported not having their own designated storage space. These districts place their stores wherever they can find a space, including in corridors and offices, hostels and wards. Of districts that did have storage facilities, only one fifth met the criterion of a minimum storage space of five square metres per LHW. Access to suitable storage space has become an increasing problem with the need to store larger quantities of medicines as a result of an increased number of working LHWs in the district; and
- **Logistics monitoring** Four out of five districts reported having their logistics system monitored in the past year. This is commendable, but monitoring has to lead to action by Programme management.

4.3.4 Stipends/salaries and payments system

- **Delays in payments** The payment of salaries is the main Programme expense. The efficiency of the system was monitored in the Flow of Funds study. However, while the Programme reports that there have been increases in efficiency in recent years, at the time of the evaluation, there was a shortage of funds being released and, once again, there were delays in payments;
- **External constraints** The flow and level of funds available to make payments can be beyond the control or responsibility of the Programme. The Programme has implemented a number of initiatives to reduce delays in payments (e.g. payments into the bank accounts of LHWs; the hiring of Accounts Supervisors to process the payments, rather than relying on deputed AGPR staff; the agreed annual Cash/Work Plan);
- **Project allowance** While budgeted for, this was not paid due to audit objections. A performance bonus system proposed by the Programme was rejected. In the view of the evaluation team, this would have been hard to implement fairly;
- **Training allowances are often delayed** This occurs due to the processing procedures and, in particular, could potentially result in demotivating trainers, who are important for developing the knowledge and skills of the LHWs; and
- **Remuneration review** The Programme did not review the remuneration and allowances packages of LHWs and LHSs as planned.

4.3.5 Performance monitoring system

- **Service delivery has improved overall** Of the ten measures that make up the Performance Score for delivering preventive and promotive services, the LHWs are delivering more services on almost every measure. Even the low-performers (the bottom quarter) are providing a higher level of services than previously. However, these low-performers are still not managing to deliver at the same level as the second-to-lowest quartile of LHWs were managing to deliver at the time of the 3rd Evaluation. Despite improved training and supervision, there is a group of LHWs who are not working;
- **Performance management** There is a performance system in place for LHWs that is being utilised. However, there is still a large number of LHWs providing a very low level of services. The system needs to be managed to ensure improved performance levels, and to implement sanctions for those LHWs who fail to perform;
- **Supervision is available** The Programme has managed to provide a supervision ratio of 1:23 (LHS:LHWs), which is above the target of 1:25. Less than one tenth of supervisors now have responsibility for more than 30 LHWs. The Programme target of 75% of LHWs receiving a supervision meeting in the previous month has been exceeded, with a result of 80%;
- **Health Committees** High-performing LHWs tend to have functioning Women's Health Committees; as this is a part of their job, again, it is not surprising. However, there could be a reinforcement that occurs where, as the community becomes more engaged, they act to increase the accountability of the LHW;
- **Duration of service** The LHW improves her performance the longer she is engaged by the Programme;
- **Management and monitoring** practices are being shown to improve LHW performance, including:
 - consistent priorities for service delivery (adopted by the district, the LHS and the LHW) result in higher performance;
 - district management support where the EDO-H fulfils a leadership role, and there is managing and monitoring by the DPIU;
 - provincial monitoring by the Field Programme Officers (FPOs);
 - LHSs who provide monthly supervision (where they visit the LHWs and their households – with and without the LHWs – and use their checklist) have higher-performing LHWs;
 - The LHS is expected to report on non-performing LHWs at the monthly meeting;
 - functioning health facilities where an individual person has responsibility for the Programme and attends meetings at the DPIU; and
 - high-performing LHWs also have functioning Women's Health Committees; and
- **Seven days a week** Almost half of the LHWs reported working seven days in the week prior to the survey. This practice does not comply with Programme policy. Field visits by the evaluation team to LHWs confirmed this was common practice, and that it was being reinforced with monitoring by the LHSs. The LHWs in Sindh

and NWFP reported this practice as a reason for their looking for another job. Our analysis shows that LHWs who work six days a week provide a higher level of services than those who work seven days. In the judgement of the evaluation team, backed-up with discussion with LHWs in the field, we think that LHWs should have one day off a week, except in the case of emergencies.

4.3.6 Transportation system

- **Fleet management** Vehicles are an essential resource in providing supervision and inspection of this dispersed community-based service in Pakistan. However, the incentives for misuse are high, and they do require more controls and more authority to implement controls than some of the other systems. The fleet is also ageing, and the amount budgeted for repairs and maintenance has not been released. In addition, the process for condemnation of the vehicles is reportedly cumbersome and has not resulted in any vehicles being condemned. It is also important that the most appropriate vehicles are purchased according to terrain. Vehicles are the main capital asset of the Programme, and there is no specialist capability in fleet management within the Programme;
- **Providing mobility** Mobility is important for the supervision and inspection of LHWs. The Programme has experienced very considerable driver shortages; insufficient POL; and vehicles not being available, as they are used for other purposes (e.g. Polio days), or are non-operational. The alternative to a vehicle is the payment to LHSs of a travel allowance. However, these allowances have been subject to delays. These problems call for management attention, and yet there is no designated manager at the FPIU or the PPIU responsible for transportation; and
- **The cost of doing the job** It is unacceptable that LHSs should bear the cost of their transportation in order to carry out their work. The LHS should be 100% confident that she will receive her full POL or fixed travel allowance, and reimbursement for any vehicle repairs.

4.3.7 Management Information System (MIS)

- **Lack of demand** There is evidence indicating a lack of demand for high-quality management information. The Planning Commission requests performance feedback, but only on a few key indicators. While the Annual Report produced by the Programme for the Ministry of Health reports on some of the targets of the PC-1, it does not provide a full report on progress in target implementation. There is little evidence of demand for reporting on many of the key performance indicators (KPIs) determined in the strategic plan or on the implementation strategies of the PC-1;
- **Accuracy, timeliness and relevance of information** A substantial amount of information is collected by the Programme's internal MIS, requiring considerable effort by the LHWs and their supervisors. The main information that is actually used is reporting against budget and reporting the number of working LHWs. It is surprising that a key cost-driver such as the number of LHWs recruited in a year has to be calculated indirectly;
- **Compliance with monthly reporting** There is a high level of compliance with LHWs and their supervisors on filling in the monthly reports. LHSs are being used to complete the health facility's monthly report. This does not necessarily mean

that the facility management are not interested in the LHW's service provision. However, there is a risk that this could indicate a lack of engagement;

- **Over-reliance on the MIS** Due to the lack of development of the mini-surveys and the absence of a mid-term external evaluation, the Programme had to rely on their MIS for information. The mini-surveys and evaluations were to be important sources of performance information and MIS validation. The MIS is reliant on inputs from over 95,000 people, many health facilities, and over 130 districts. While it can provide ongoing management information, and this is used by some of the active districts and provinces, it does need to be supported by additional high-quality monitoring and evaluation information; and
- **Reducing the amount of information collected by the LHW** as proposed by the Strategic Plan was not explored.

4.4 Conclusions

The performance required of the LHWP systems is relatively well specified in the Strategic Plan and the PC-1. Overall, the systems of the LHWP have coped with the large expansion of the Programme from 40,000 LHWs in 2000 to almost 90,000 LHWs in 2008. The systems have operated to: recruit LHWs and LHSs (although there was a failure to recruit drivers); provide training, including continuing training at the health facility and refresher training courses; improve the level of supplies to LHWs (although there are still problems); improve the payment of salaries (although, again, there are still unacceptable delays); and increase the level of supervision of LHWs.

The core design of the systems appears robust, and has been sustained over the 15 years of the life of the Programme. Poor systems performance occurs most often when there is a shortage of inputs, or non-compliance with the systems standards. For example, there was insufficient procurement of supplies for the LHWs (logistics system); non-compliance with residency criteria in Sindh (selection and recruitment system); and lack of funds for salary payments was evidenced at the time of the Quantitative Survey.

These problems are management and governance problems, not systems problems.

Three particular areas of non-performance in systems need to be highlighted:

- The system for dealing with non-performance of LHWs requires improvement so that, where there is evidence of non-performance and a non-willingness to work, the LHW can be terminated efficiently;
- The process for condemnation of vehicles is not operating;
- The procurement process conducted by the MoH and the FPIU has experienced problems resulting in long delays in purchasing.

Systems also need to undergo continuous improvement (not necessarily be radically changed), and planned systems developments were generally not implemented. This cannot be attributed to lack of funding, as many of the developments did not require additional funds; neither can this be due to the tensions of rapid expansion, as most of the expansion of the Programme had occurred by 2003.

Our conclusion is that there is a lack of management attention focused on systems improvements: attention is absorbed by operational concerns. It is also difficult to build up the necessary experience to deal with systems development when there are frequent

changes in senior management in the Programme and in the Ministry of Health (see also Management Review). There is also a lack of accountability to the Ministry of Health for developments budgeted for and approved in the Strategic Plan and PC-1.

5 The Management Review

5.1 Purpose

The Management Review took as its focus the management of the whole of the Programme's strategy as outlined in the PC-1 and in the Programme Strategy during the 2003-08 review period.

5.2 Methodology

The methodology used in the Management Review was firstly, to restate the strategic objectives for Programme as outlined in the Strategic Plan and in the PC-1 and thereafter to examine a number of key areas for management performance.

The full list of these areas of performance was discussed and agreed with the Programme's management team at the start of the evaluation, and the findings of four of these areas of performance are outlined here in this Summary:

1. Delivery of Core Services
2. Governance arrangements
3. Management of innovations
4. Coordination with the wider health system

The Management Review is informed by the results of the Quantitative Survey together with the additional data and results generated by the Systems Review and the Finance and Economic Analysis.

5.3 Results

5.3.1 Overall Management Results

Much of the overall programme performance is covered in the previous sections of this Summary Report where it was shown that:

1. The coverage of the Programme increased during the period under review
2. The LHWP are on average delivering a higher level of service than they did at the time of the 3rd evaluation increased levels of service provision in key areas of service delivery
3. More services were provided to the poor than to other income groups
4. LHWs are now established as community service provider and is recognised by the community for the services that she is able to deliver.
5. LHWs and their supervisors are also more knowledgeable than they were at the time of the 3rd Evaluation.

In addition, the increase in service levels has probably been supported by the enhanced reputation of the Programme; by increased community awareness of the role of the LHW and by the increased local accountability of the LHW.

Since the 3rd Evaluation the Programme's management has retained and developed its organisational competence in several key areas:

1. Recruitment: since the previous evaluation reported in March 2002, the Programme has retained its core competence in recruiting village-based women;
2. Training: similarly the Programme has retained its competence in training and supervising LHWs and LHSs. The professional knowledge and skills of the LHW and her supervisor have increased, although there are still areas of weakness where improvement is needed. The training system has successfully trained all the LHWs and provided them with refresher training.
3. Supervision: there has been an increase in the supervision of both LHSs and LHWs.
4. Salary Payments: at the time of the survey, there were delays in salary payments, reportedly due to insufficient funds being released by the Ministry of Finance. This was attributed to the economic crisis. However, the system was successfully providing all LHWs with their wages, albeit delayed.
5. Programme Funding: budgets and expenditure per LHW did increase between 2003 and 2008. Sufficient funds were provided for the Programme to expand from approximately 70,000 to 100,000 (if donor contributions are included).

However in a couple of areas Programme management has been less successful:

1. Expenditure Management: there was a disproportionate increase in the wages of the LHWs in comparison with other areas of expenditure. These wages have increased in real terms, and command a significantly larger share of the budget than planned..
2. Supplies and Transport: however, there have been insufficient funds for the planned level of supplies and transport, and many LHWs are missing basic equipment. This lower level of spending will have resulted in lower levels of service delivery.

5.4 Strategy Management – Programme Governance and Leadership

5.4.1 Emerging Weaknesses

However, where the Programme management (and governance arrangements..) have not been so successful has been in the implementation of some of the wider goals of the Strategy and PC-1. This is attributable to a failure of governance processes and management control, rather than a systems failure.

For example, the Programme has largely failed in moving from Phase 1 (“a time of consolidation and expansion”) to Phase 2 (“a time to develop sustainability”).

In operational terms this meant that there were to be 100,000 fully trained LHWs and 4,000 LHSs at the end of Phase I (mid 2003- mid 2005). Systems and procedures for training, implementation, monitoring and supervision were all to have been improved.

Similarly, by the end of Phase 2 (mid 2005 to mid 2008), a capacity-building process at the provincial and district levels was to have been conducted, along with the trialling of different models for the development of a sustainable and viable structure for the LHWP. This included exploring, through pilots, the transfer of management functions to the provinces and districts. These initiatives did not happen.

The Programme has also failed to implement a number of initiatives and systems developments outlined in the PC-1 and in the Strategic Plan. For example:

- The external evaluation planned for 2005 did not occur;
- Expansion of the Programme was uneven with 50% of the expansion in LHW numbers occurring in only 15 districts;
- The Programme did not consistently stop recruitment in urban areas;
- While there was expansion into poorer areas, the dominant practice remained to increase LHWs around health facilities where the Programme was already established;
- Mechanisms established to explore options for decentralization were never utilised. The Inter-Provincial Committee for Decentralization never met, and wider government did not pursue decentralisation during the period covered by this PC-1;
- The building of partnerships with NGOs has been limited, including at the national level.
- The increasing integration of LHW services with those providing by Basic Health Units has not taken place
- The EPI policy aimed at using LHWs nationwide to administer vaccines was not fully implemented;
- The planned reviews in areas of high expenditure (salary policy, development of a fleet management system, improvement of the logistics management system) did not take place.

In addition, the Programme failed to address some strategically important problems. These included:

- the significant number of non-resident LHWs in Sindh
- the lack of sanction on non-performing LHWs;
- the write-off, disposal and replacement of outdated vehicles; and
- the lack of timeliness in procurement of drugs.

5.4.2 Need to Operationalise Governance Frameworks and Strengthen Leadership

Some part of the explanation for these strategic management weaknesses is to be found in the weak governance and leadership frameworks of the Programme.

The two main oversight committees for the Programme, the Programme Review Committee and the Inter-Provincial Committee on Decentralisation did not meet during the 5 years of the review period. In addition the post of the National Advisor – which was designed to

support Programme development by coordinating activities with the provinces, and planning and piloting strategies for the future – remained vacant after September 2005.

The Auditor General's department conducts annual audits of the Programme but these are not Systems Audits and do not address wider questions of Value-For-Money or Implementation Against Plan.

The Planning Commission requests performance feedback, but only on a few key indicators. While the Annual Report produced by the Programme for the MoH reports on some of the targets of the PC-1, it does not provide a full report of its implementation.

Within the MoH, the Development DG Health has a role designed to guide the development of the PC-1, project planning and monitoring. The role also includes evaluation of donor projects. The MoH has lacked capacity in this area. In 2007, a project monitoring unit was established that might, in future, take on a monitoring role.

In addition, the progress reports to be written by external experts and presented to the provincial and federal Health Committees were not produced; neither was there a mid-term external evaluation. There was an internal assessment conducted by the Field Programme Officers in 2006–07, supported by external agencies.

The working relationship between the National Coordinator of the Programme and the Secretary of Health and the Director General of Health Services tends to focus on operational issues and crises, to the exclusion of strategic management issues.

Finally, these three complex senior-level management jobs in health have all been subject to high turnover during the five years under review, with three changes in each position (i.e. National Programme Coordinator, Secretary of Health, and Director General of Health Services). Frequent changes in leadership, in both the Ministry and in the Programme, do not help with the implementation of any systematic appraisal process of senior Programme managers or the Programme. It is difficult to see how newcomers can hope to grapple with strategic issues within a one to two year time frame.

5.5 The Management of Programme Innovations

An understanding of a management team's effectiveness in introducing innovation provide a good benchmark for a wider set of important management characteristics. Successful innovation demonstrates that a management team has day-to-day clarity in its vision and the achievement of strategic goals; that it has the confidence of its governance teams to use new resources to "experiment" with what may or may not work; that it has management its stakeholders outside and inside the organisation in ways that constantly focuses attention on improvements in the effectiveness of services or the efficiency with which they are delivered.

During the 2003-2008 review period the Strategic Plan and the PC-1 identified the need for innovation in five main areas:

1. increasing the range of services to be provided by the LHW;⁵

⁵ The PC-1 (2003–08) did formalise the agreements to increase the range of services to include provision of TB DOTS; provision of injectable contraceptives, the use of LHWs as vaccinators and to act in liaison with Community Midwives to be trained under the MNCH; screening females in the advanced stages of pregnancy; immunisation of pregnant women for tetanus toxoid; involvement in primary eye care; greater involvement in National Immunisation Days and measles campaigns.

2. improving the performance of the LHW;
3. developing a sustainable programme;
4. ensuring integration of primary health care services at the community level; and
5. increasing the number of eligible LHWs in areas where the problem was illiteracy.

In the first area of innovation – “increased range of LHW services” – an internal and an external innovations committee were formed. However, neither the internal committee nor the external committee (the Technical Committee for Innovations (TCI)) carried out the important task of establishing a statement of priorities that would provide the criteria for making judgements on the LHWs scope of work. Nevertheless 13 pilot innovations were identified by the FPIU as having been identified in 2004-08, and of these six were rolled out to become part of the LHW scope of services and as such are supported during LHWs refresher training.

In the second area of innovation “improved performance of the LHW”, the focus was on three areas: refresher training; vehicles for supervision; and LHS supervision checklists and feedback reports. Refresher training was successfully rolled out across the country; vehicle procurement was less successful and large numbers of LHS are without vehicles; and the performance checklist are used by LHS to provide feedback to LHWs across the country.

In the final three areas of innovation the planned activities were less successful and have not been rolled out nationally or not at the level of performance that was planned.

The Management Review concluded that:

- Planned innovations and quality improvements have happened when the solution is under the Programme management’s direct control, and particularly when that solution is deemed to be training or conducting a pilot study. In other words, the Programme has been able to successfully manage internal relationship for delivering innovation, but when external relationship success are important for delivering innovation the initiatives have been less successful.
- While most initiatives planned during the period under review were not implemented, those designed for improving the performance of the LHW were, and had the desired result.
- Additional refresher trainings were developed and implemented in the period covered by the PC-1. They focused on maternal and child health, counselling skills, and nutrition – all core skill areas of the current LHW curriculum. The evaluation has proven the success of refresher training in improving the knowledge and performance of LHWs, particularly the training in counselling cards, food and nutrition, and MIS tools.

5.6 Programme Management and the Wider Health System

The Management Review examined how well the Programme had managed the interface between the LHWP and the wider health system and with the vertical health programmes.

The findings as regards integration with the wider health system include:

1. The Programme design of implementation units, and the means by which they are integrated into the Ministry and Departments of Health and district government, have proven successful in establishing a grass-roots community service.
2. The government and the managers of the implementation units know the procedures, policies and standards of the Programme even if, at times, there is a lack of authority to enforce compliance and to deliver sanctions for non-compliance. One solution to this weakness is the functioning of oversight committees of senior people with influence to promote the benefits of compliance in order to support the resolution of difficult problems. Another solution is for senior management to be able to deliver more effective sanctions to non-compliant districts and provinces.
3. The Programme did not pilot different models for Programme operation in different districts, as it had planned to do after 2005.
4. Different service delivery models implemented by the provincial or district governments can have an impact on the integration of the Programme as an outreach service delivering public health services – for example, the contracting out of BHUs. It is important that different service delivery models allow for the benefits of integration to be retained.

The Review's findings for the interface with the vertical health programmes were as follows:

1. Federally funded primary health care programmes are designed to address issues that are of national priority. It is not possible to implement these programmes without the collaboration of the provincial Departments of Health and the district health offices.
2. It is, reportedly, difficult to achieve policy coordination amongst the MoH's public health programmes. The PC-1 planning process – which essentially locks in activities – does not support collaboration, and inhibits flexibility and responsiveness. In addition, Programme managers report spending a great deal of their management time attempting to obtain permission from higher authorities for initiatives that appear to be already within the framework and intent of the PC-1.
3. Coordinating public health services at the district level is the responsibility of the EDO-H: the day-to-day operation of the public health programmes is managed by his management team members, with whom he holds regular meetings. Where there is a District Health Plan, then the LHWP is typically included in it, and the District Assembly will have reviewed the plan.
4. The EDO-H reported that the LHWP fits best with district health priorities of mother and child health care, family planning and NIDs. Across the country, there was consensus between DCs, LHWs and LHWs that the Programme's top priority was maternal health, child health and family planning.
5. LHWs are spending a significant amount of time on NIDs in collaboration with the EPI programme. This activity is the result of commitments made by the government to the World Health Organization to participate in the international goal of polio eradication. Working on NIDs does not have a negative impact on the LHW's performance;

however, nearly half of all LHWs are working outside their catchment area on this activity, which is against Programme policy. The high commitment in time required by LHW for NIDs needs to be monitored to ensure that other core priorities are not displaced.

6. The EDO-H and his DC of the Programme manage the LHWP. Many of the EDO-Hs attend, even if briefly, the monthly LHS meetings chaired by the DC.
7. There will always be a tension between the prescribed solutions that address national health priorities and the need to have some flexibility in service delivery to cater for district priorities. However, there appears to be consensus between the district health management and the LHS and LHWs that the focus on service delivery should be on maternal and child health, and family planning. While district managers would like an increase in budget allocation and salary incentives, there does not appear to be a conflict between district health primary health care strategies and the Programme.

5.7 Conclusions

The Programme's management has been able to both expand its coverage and improve the service levels and impact of the Programme during the period under review.

However, whilst the Programme has made significant progress the strategic plan and PC-1 have not been fully implemented, and important initiatives and systems developments have not taken place.

Any organization has limits on the amount of management attention available. In a bureaucracy working in a challenging environment, such as rural Pakistan, this attention is quickly absorbed by day-to-day operations. And so it is with the Programme.

The governance arrangements of the Programme are there to allow management (both internal and within the Ministry and Departments of Health) to provide leadership and strategic management. The governance arrangements are there also to demand appropriate levels of performance reporting, and to ensure accountability.

The governance arrangements generally failed to deliver these functions, and many issues identified in the Management Review may have been addressed if a stronger governance arrangement had been in place.

Some of the issues that were not addressed are: options for decentralisation, non-compliance with residency criteria in Sindh, issues of integration with BHUs that have been contracted out to non-governmental organisations, and further expansion in urban areas at the expense of development of the Programme into poorer rural areas. These are issues that needed to be exposed by the National Coordinator of the Programme, addressed through the governance committees, and on which decisions needed to be taken to resolve the issues by the Secretary of Health and the central agencies.

6 The Financial and Economic Analysis

6.1 Purpose

There were three main objectives orienting the financial and economic analysis:

1. To understand the overall spending levels of the Programme between FY 2003/04-2007/08, and so understand the government's ability to finance the Programme and also the Programme ability to efficiently spend the resources available;
2. To understand how the annual unit costs of an LHW have evolved over the same period; and
3. To review overall spending patterns, for example between salary and non-salary spending, to understand their implications for LHW service delivery.

6.2 Methodology

The data used in this analysis comes from two main sources:

1. Government documents, including planning and budgeting documents such as the PC-1, and Statements of Expenditure (SOEs),
2. The LHW Programmes own staffing and payroll databases.

Unit costs for providing for each LHW were calculated by dividing total annual expenditure for a given year by the average number of LHWs reported as being in-service during that year.

6.3 Results

In the previous evaluation, it was concluded that the Programme needed to spend significantly more resources per LHW, with the objective of increasing the quality of its service delivery. Budgets and expenditure per LHW did increase between 2003 and 2008. Sufficient funds were provided for the Programme to expand from approximately 70,000 to 100,000 (if donor contributions are included- though these are not accounted for and are difficult to assess).

6.3.1 Budget Allocation and Spending Levels

While the budget allocated to the Programme was not equivalent to the PC-1 request for each year, the Programme has a good record of spending the budget that is released (Table 1).

Table 1 Comparison of Budget and Actual Expenditure (Rs. million)

	2003/04	2004/05	2005/06	2006/07	2007/08	Total
PC-1 request	4,493.591	3,913.643	4,080.083	4,403.134	4,643.050	21,533.501
PSDP provision (budget allocation)	2,600.000	3,430.780	3,880.000	4,962.343	4,892.000	19,765.123

Funds released	2,434.012	3,088.288	3,880.000	4,962.342	4,634.870	18,999.512
Total expenditure	2,427.017	2,951.117	3,862.182	4,945.734	4,632.628	18,818.678
Expenditure/Budget allocation	93%	86%	100%	100%	95%	95%
Expenditure/Release	100%	96%	100%	100%	100%	99%
Expenditure/PC-1 request	54%	75%	95%	112%	100%	87%

Source: Finance Section of the FPIU

Note: In 2006/07 additional funds were provided to pay for salary arrears

Real expenditure per LHW remained fairly stable, with the exception of a large increase in 2006/07 to pay for salary arrears.

Budgets on other inputs, such as supplies and vehicles, were underspent. Non-salary inputs (such as drugs and contraceptives, transportation and training) need to be provided if the Programme is to further increase the quality of its service delivery.

During a period of growth, increased staffing levels will clearly be a major driver of expenditure levels. By June 2008, Programme records show **89,125 working LHWs and 949 LHWs in training**. However, in June 2005, by which time the target of 100,000 was supposed to have been met, there were 78,595 working LHWs and 4,685 LHWs in training.

The **annual turnover** of LHWs (including terminations of employment) is estimated to be about 4%.

6.3.2 Unit Costs

The **planned unit cost per LHW per year** during the period, of the PC-1, ranges from Rs. 44,921, to Rs. 48,840 depending on the calculation method used. The evaluation has used the unit cost figure of Rs. 48,840. .

Of these planned unit costs LHW stipends and drugs and contraceptives account for around 70% of the planned budget.

Actual unit costs per LHW per year were for the period of the PC-1, 95% of the unit cost that had been planned. Over the five-year period, real expenditure per LHW remained fairly stable, with the exception of a large increase in 2006/07 to pay for salary arrears.

6.3.3 Changes in the Structure of Unit Spending

The average real unit cost for an LHW between FY 2003/04 and 2007/08 fell by 14%.

Within that spending framework the LHWP is paying progressively more in real terms for their key input – the Lady Health Worker. Stipends have increased by 31% in real terms between 2003/04 and 2007/08.

In order to offset the increase in stipends other areas of **non-salary expenditure were reduced**.

The biggest **drop in share of expenditure is for drugs and contraceptives**. The Quantitative Survey found that actual usage of drugs by LHWs is lower than the quantities planned in the R-PC1. Even so, current levels of drug expenditure are inadequate; the amount spent was 36% less than that allowed in the budget. Many LHWs were facing acute shortages of drugs.

The contraceptive budget was underspent in real terms by 25% throughout the period.

There are **insufficient operational vehicles** for Lady Health Supervisors (LHSs) to have full-time access to a vehicle or to replace vehicles that are beyond repair.

There has been inadequate investment in vehicle maintenance and repairs. It is not surprising, given that few vehicles have been written off and the fleet is aging, that over one **quarter of the vehicles are non-operational**.

The Programme has underspent in the important, and yet inexpensive, area of management and monitoring. This must impact on levels and quality of service delivery of LHWs and on the ability of the Programme to implement its PC-1.

The LHWP appears to have **procured all of its main inputs at economical prices**. The prices paid by the LHWP for drugs and contraceptives, on average, are low compared with median international prices.

6.4 Conclusions

Budgets and expenditure per LHW have increased since 2002. The Programme is not as underfunded as it was in the previous analysis, published in March 2002, which concluded that the Programme needed to spend significantly more resources per LHW to improve the quality of its service delivery. Budgets and expenditure per LHW did increase. Sufficient funds were provided for the Programme to expand from approximately 70,000 to 100,000 LHWs (if donor contributions are included).

As the Programme develops further and to ensure efficient service delivery by the LHWs, the Programme needs to budget on the basis of an appropriate unit cost, and spend accordingly. The cost structure of the PC-1 (2003–08) appears **appropriate for future budgeting**.

The main **improvements in cost-effectiveness** are likely to be generated in four areas:

1. through improved performance from the 25% of LHWs who are currently delivering low levels of service;
2. through increased mobility of Lady Health Supervisors;
3. through increased availability of LHW supplies; and
4. through improvements in management and monitoring.

7 Policy Conclusions

7.1 The LHW Service

In summary, it is clear that the LHWP has effectively managed its expansion without undermining its impact. This is a considerable achievement.

Some key factors that have enabled this, and which must be a continued focus for the Programme in the short- and medium-term are LHW supervision and performance management, and effective district-level management.

In particular, impact can be increased further by taking measures to increase:

- Rate of LHW service provision
- LHW knowledge levels
- Expansion into poor and unserved areas.

These measures include ensuring effective:

- LHW recruitment and retention
- LHW supervision & performance management
- Training regimes (core & refresher)
- District-level management.

By taking measures to increase LHW performance and knowledge, and by expanding into poor and unserved areas the Programme should be able to increase its impact. However, in doing so, it is important that it does not lose sight of other key factors that will influence the Programme's impact – in particular, the provision of adequate supplies, equipment and clinical referral services. The 2008 survey has shown that there are ongoing problems in these areas that need to be addressed.

Looking forward, as the LHWP matures it should begin to consider issues of efficiency more systematically, maximising health impact given a fixed level of financial inputs. It should identify areas that have the potential for substantial health benefits that have not yet been properly realised. It should consider the combination of inputs and of services that can be expected to maximise the impact on health outcomes.

7.2 Systems

Poor systems performance occurs most often when there is a shortage of inputs, or non-compliance with the system's standards e.g. logistics systems, selection and recruitment system, funding systems for payments of salaries.

These problems are management and governance problems and not systems problems.

Three particular areas of non-performance in systems need to be addressed:

- The system for dealing with non-performance of LHWs requires improvement so that, where there is evidence of non-performance and a non-willingness to work, the LHW can be terminated efficiently;
- The process for condemnation of vehicles is not operating;
- The procurement process conducted by the MoH and the FPIU has experienced problems resulting in long delays in purchasing.

Systems also need to undergo continuous improvement (not necessarily be radically changed).

Systems will improve when the Programme's governance arrangements ensure that leadership and management are focused and accountable for systems improvements.

It is difficult to build up the necessary experience to deal with systems development when there are frequent changes in senior management in the Programme and in the Ministry of Health.

7.3 Governance and Management

The Programme managers must now plan for the future. There are emerging risks that must be managed by the Programme. These include:

- tolerating non-compliance; for example, by the 25% of LHWs providing a low level of service, LHWs not maintaining the residency criteria in Sindh, LHWs working outside their catchment area and/or for other organisations, and LHWs charging for services. The Programme needs support from government to apply sanctions for non-compliance;
- the lack of accountability of the Programme to the government for full implementation of the Strategic Plan and the PC-1 between June 2003 and June 2008. There needs to be a more formal system of reporting against key performance indicators. The Programme also needs support from government to implement initiatives that will ensure development and risk management;
- rapid turnover in management positions at all levels in the Programme presenting a risk that managers are not in position for sufficiently long periods to provide leadership. In addition, there is a shortage of expertise in the management of the fleet, procurement, and logistics management at senior levels.

There are also issues that Programme managers need to address in order to ensure that the Programme can expand successfully into more disadvantaged areas and to improve the level and quality of services provided by LHWs. These are that:

- Programme expansion has occurred both through the LHWP extending coverage to previously unserved health facilities in more disadvantaged areas and through recruiting more LHWs to health facilities that were already a part of the Programme. Future expansion is going to require working with provincial and district governments to ensure functioning health facilities that take responsibility for the success of their outreach services;
- compliance with Programme policies and performance standards must be achieved in order to be able to introduce greater delegation to the provincial and district levels;

- district management that has a proven record of supporting Programme performance should be given increased responsibility as soon as accountability mechanisms are in place. There will need to be a strengthening the Programme's capability in monitoring and the provision of management information. As the community becomes increasingly aware of the role and value of the LHW, she, in turn, becomes accountable to the community. In future, it might be that communities will not accept non-performing LHWs;
- the factors under the Programme's control that have been shown to improve LHW performance need to be strengthened. These will include: further management and administrative resources to all districts, but particularly those that have large programmes; initiatives targeted at encouraging effective supervision by the LHS; ensuring health facilities have a person who is responsible for the Programme; and refresher training.
- the budgets for management, monitoring and training are only a small percentage of the unit cost of the Programme, yet they are important for increasing the quality of the services and should not be under-utilised; and
- collection of high-quality information to use for policy development and decision-making.

The Programme's vision of providing a service to the doorstep of the community has been retained over the past five years. The LHW is now established as a community service provider who is recognised by the community for the services that she is able to deliver. The LHWP is able to provide services to the community, and in all provinces and regions of the country. The goal now must to improve LHW performance and expand into even poorer areas, so as to maximise the impact on health.

7.4 Budgeting, Spending and Cost Effectiveness

As the Programme develops further and to ensure efficient service delivery by the LHWs, the Programme needs to budget on the basis of an appropriate unit cost, and spend accordingly. The cost structure of the PC-1 (2003–08) appears **appropriate for future budgeting**.

The main **improvements in cost-effectiveness** are likely to be generated in four areas:

1. through improved performance from the 25% of LHWs who are currently delivering low levels of service;
2. through increased mobility of Lady Health Supervisors;
3. through increased availability of LHW supplies; and
4. through improvements in management and monitoring.