

# *Lady Health Worker Programme*

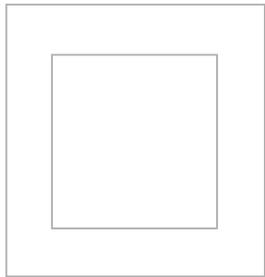
*External Evaluation of the  
National Programme for  
Family Planning and  
Primary Health Care*

*Financial and  
Economic Analysis*

Oxford Policy Management  
August 2009

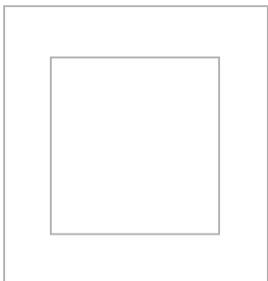






# *Lady Health Worker Programme*

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



## **Financial and Economic Analysis**

**Oxford Policy Management  
August 2009**



## **Reports from this evaluation**

1. Summary of Results
2. Management Review
3. Systems Review
4. Financial and Economic Analysis
5. Quantitative Survey Report
6. Punjab Survey Report
7. Sindh Survey Report
8. NWFP Survey Report
9. Balochistan Survey Report
10. AJK/FANA Survey Report
11. Lady Health Worker Study on Socio-Economic Benefits and Experiences

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## Executive summary

This report on the financial and economic analysis of the Programme is one of the areas covered by the 4th Evaluation of the National Programme for Family Planning and Primary Health Care (Lady Health Worker Programme).<sup>1</sup> This fourth external evaluation of the LHWP by Oxford Policy Management began in December 2007, with the objective of evaluating the period covered by the PC-1,<sup>2</sup> from July 2003 to June 2008.<sup>3</sup>

The terms of reference for the evaluation were as follows:

1. To provide the Ministry of Health and other stakeholders with accurate, credible and usable information on the LHWP performance;
2. To examine changes in the Programme's performance since the 3rd Evaluation;
3. To explore the determinants of performance;
4. To identify socio-economic benefits to stakeholders and communities; and
5. To provide findings and policy options enabling the Programme to further strengthen its performance.

To fulfil these objectives, the key outputs of the evaluation are:

- Quantitative Survey Report;
- Provincial Survey Reports for Punjab, Sindh, NWFP, Balochistan, and AJK/FANA;
- Management Review and Systems Review;
- Finance and Economic Analysis (this report);
- Lady Health Worker Study of Socio-Economic Benefits and Experience.

The evaluation tools included a nationwide sample Quantitative Survey (based on the form of questionnaire used during the 3rd Evaluation, to ensure comparability of results), a Qualitative Study to supplement the Quantitative Survey, financial analysis, stakeholder interviews and meetings, and document reviews.

This Financial and Economic Analysis Report provides unit cost information that will be useful for future strategic planning and budget forecasting for the Programme.

The report is structured as follows: Chapter 1 presents an overview of the performance of the Lady Health Worker Programme (LHWP) since its inception in 1993. Chapter 2 discusses the planned expenditure and unit costs in the PC-1, which covered the period 2003/04–2007/08, and Chapter 3 explores the actual unit cost based on Programme expenditure during that time. Chapter 4 presents an analysis of actual expenditure levels, sources and activity, and, based on our findings, Chapter 5 offers suggested measures to improve efficiency and effectiveness. Chapter 6 closes this report by considering Programme expansion and the required level of funding.

The following is a summary of the key points and findings from each of the chapters in this report.

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<sup>1</sup> The Programme is officially called the National Programme for Family Planning and Primary Health Care. It is commonly referred to as the Lady Health Worker Programme, and is hereafter referred to as the LHWP or the Programme in this report.

<sup>2</sup> The core planning document of the Programme.

<sup>3</sup> The most recent independent evaluation of the LHWP was commissioned by the Ministry of Health in 1999 and implemented by Oxford Policy Management. This was the 3rd independent LHWP Evaluation. The key conclusion of this evaluation was that the LHWP had managed to buck the international and national trend of poor performing community health worker programmes and was, in fact, providing a service that had an impact on key health indicators.

## Overview

The Lady Health Worker Programme was created in 1993, with the objective of providing primary health care services at the community level across the country. The Programme is a federally funded programme and is implemented in collaboration with the provincial Departments of Health through a series of implementation units.

In December 2007, the Ministry of Health commissioned an independent evaluation of the LHWP. This current financial and expenditure study is one of the instruments used by the evaluation team, and is focused on providing unit cost information that will be useful for future strategic planning and budgeting forecasting for the Programme.

During the period from 2000/01 to 2007/08,<sup>4</sup> total health expenditure (both private and public) was between 2.0 percent and 2.6 percent of GDP. Government expenditure on health, as a percentage of total health expenditure, was close to 19 percent.<sup>5</sup> Government health expenditure as a percentage of GDP remained roughly constant, at close to 0.6 percent of GDP.

The growth in the overall health budget has been around 14.5 percent per annum, but the combination of high inflation and a high rate of population growth has resulted in real per capita health expenditure falling by 11 percent.

Most health expenditure is incurred at the provincial level; however, this has been falling in recent years as the proportion of health spending at the federal level has increased dramatically (more than doubling between 2002/03 and 2007/08).

Spending changes in the distribution between the recurrent and development budgets has seen recurrent spending fall from 75.5 percent of total health expenditure to 71.9 percent, accompanied by an offsetting increase in development expenditure from 24.5 percent to 28.1 percent.

Between 2003/04 and 2007/08, there was an 88 percent increase in the allocation of budgetary funds to the LHWP, increasing from Rs. 2,600 million in 2003/04 to Rs. 4,892 million in 2007/08. However, due to the proportionally larger increase in overall health spending at the federal level, the amount provided for the LHWP as a proportion of these funds decreased from 55.5 percent to 28.1 percent.

## Planned expenditure and unit costs in the PC-1 (2003/04–2007/08)

The PC-1 is a comprehensive planning document for the LHWP, approved by the Executive Committee of the National Economic Council (ECNEC) on 7 January 2004.

The PC-1 remains the Programme's main planning document. The actual share of expenditure for salaries/stipends and supervision was higher than planned, while that of supplies and training was lower.

The budgetary requirements for the Programme in the PC-1 for the period 2003–08 were Rs. 22,460.66 million. Budgets for the funds to be received from ADB through the WHP and RHP were included as separate and aggregated budgets in the PC-1.

In the PC-1, LHW stipends and drugs and contraceptives account for around 70 percent of the planned budget.

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<sup>4</sup> Ministry of Finance, Pakistan Economic Survey 2007/08, ch. 11, 'Health and Nutrition', Table 11.2.

<sup>5</sup> <http://www.who.int/nha/country/pak.pdf>

The unit cost (per LHW) during the period, in accordance with the PC-1, ranges from Rs. 44,921 (Annex C-A), to Rs. 48,840 (PC-1 budget) to Rs. 47,375 (with ADB funding) depending on the calculation method used. We have used the unit cost figure of Rs. 48,840.

There are funds and technical assistance provided by Development Partners that are not budgeted for in the PC-1 and are unaccounted for by the Programme.

## **Actual unit cost**

By June 2008, the 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 percent.

Recruitment of LHWs is an important cost-driver of the Programme, and yet the Management Information Systems does not provide direct figures on annual recruitment.

Average real unit cost (per LHW per year) remained fairly steady over the five year period. The exception was 2006/07 when salary arrears were paid.

Average actual real unit cost (per LHW per year) was 95 percent of planned unit cost in the PC-1.

The amount spent on LHW stipends, in real terms (2003/04 prices), was significantly higher than that planned in the PC-1. The share of the budget allocated to LHW stipends was 12 percent greater than had been planned.

Costs were saved with the reduction in the amount spent on drugs and contraceptives, where the share spent with regard to the total budget was 6 percent less than that planned in the PC-1.

Whether the LHWP is underfunded, or whether the current level of expenditure represents a more efficient allocation than the amount envisaged in the PC-1, will be explored in Chapter 5.

## **Analysis of actual expenditure**

The LHWP has a good record with regard to spending funds released from the GoP budget.

The approved budget allocations were generally released by the Ministry of Finance from 2003/04–2007/08, compared with the previous period when the Programme could only expect around 70 percent of their allocations to be released.

Donor contributions are difficult to ascertain. All interpretations affected by donor contributions are based on the best approximations available.

GoP is by far the most significant contributor to the LHWP. However, donor contributions account for over 20 percent of total Programme expenditure between 2003/04–2007/08. The Programme needs to be accountable for donor funds.

DFID (UK) is the largest external donor to the Programme through the support it provided through its procurement agency (TAMA) and through budgetary support through the National Health Facility.

LHWP is funded by the federal government. However, expenditure is split between the federal level (about 26 percent), the provincial level (about 69 percent) and the districts (3.3 percent).

The exception is AJK, which spends 2.8 percent of its total expenditure through a decentralised programme at the district level.

Expenditure on drugs has been irregular, falling in 2004/05, increasing until 2006/07, and then falling steeply. Only 64 percent of the budget for drugs and contraceptives was spent.

LHW stipends are by far the largest provincial expenditure item for the Programme, accounting for around 84 percent.

Taken together, salaries and stipends, and drugs and contraceptives accounted for just over 70 percent of total Programme expenditure (federal plus provincial) between 2003/04 and 2007/08.

The relative share of resources to each province broadly matches the distribution of LHWs.

## **The funding of the LHWP**

While the LHWP appears to have purchased all of its main inputs at economical prices, all expenditure items (excluding salary costs and transportation of medicines) are well below planned amounts (Table 5.1).

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

However, the LHWP is paying progressively more in real terms for their key input – the Lady Health Worker. Stipends have increased by 31 percent in real terms between 2003/04 and 2007/08.

Even so, the relativity that LHWs had previously with public servants at the bottom of the Basic Pay Scale 6 (BPS 6) has been eroded.

There is a significant number of LHWs who are not performing to a reasonable level. These represent a cost to the Programme and to their communities.

The prices paid by the LHWP for drugs and contraceptives, on average, are low compared with median international prices.

Over the five-year study period, there have been insufficient purchases of drugs and medicines to supply the LHWs to the levels determined in the PC-1.

The survey analysis of dispensing patterns found that LHWs distribute more condoms and oral contraceptive pills per month than was forecast in the PC-1.

The contraceptive budget was underspent in real terms by 25 percent throughout the period. However, there was some contribution by DFID-UK, through the Ministry of Health, for oral contraceptive pills, condoms and injectable contraceptives.

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. The process for disposing of vehicles is not working. There are now many non-operational vehicles throughout the country.

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.

Expenditure items (apart from salaries, training and procurement of other assets) are below planned amounts. 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 percent less than that allowed in the budget. This was confirmed

by the Quantitative Survey, which found that many LHWs were facing acute shortages of drugs.

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.

We know from the evaluation that high performing and knowledgeable Lady Health Workers impact on the health outcomes of their communities. The Programme needs to ensure that the organisational support and supplies are provided so as to increase the efficiency of the Programme in delivering its services.

## **Programme expansion and levels of funding**

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 greatest increase in value for money would be for the Programme to deal with the 25 percent of LHWs who are not performing well. This would also lead to greater achievement of key performance indicators and impact on health in the communities where LHWs are serving.

The cost structure of the PC-1 (2003–08) appears appropriate for future budgeting.

Three scenarios have been explored for expansion in the number of working LHWs. The budget for 100,000 LHWs, based on the previous cost structure of the PC-1, would be nearly Rs. 50,000 million for the five-year period 2009/10–2013/14. The cost for 150,000 LHWs would be around Rs. 75,000 million.

The ratio of 1:25 LHSs appears less expensive than a ratio of 1:8, and there would be no guarantee of ongoing performance gains, as the survey has shown no evidence that a smaller ratio impacts on LHW performance. What does impact is the LHS visiting the LHW once a month (more is not necessarily better) and using her checklist, and visiting households both with and without the LHW.

## **Conclusion**

### **Funding levels were increased**

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 with the objective of increasing 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).

### **There was underspending on non-salary items**

Real expenditure per LHW remained fairly stable, with the exception of a large increase in 2006/07 to pay for salary arrears. However, there was a disproportionate increase in the stipend of the LHWs with regard to other areas of expenditure. The stipends increased in real terms and commanded a significantly greater share of the budget than had been planned. Inflation was also at a higher level than predicted by the Programme. Budgets on other inputs, such as supplies and vehicles, were underspent. The challenge to the cost structure of the PC-1 is the LHW stipends.

There was underspending on non-salary inputs, with even higher than predicted inflation. Non-salary inputs (such as drugs and contraceptives, transportation and training) need to be provided if the Programme is to increase the quality of its service delivery. The LHWs need to be well supplied, supervised and monitored. Management and monitoring expenditure needs to be targeted to ensure that Programme standards are complied with (including the quality of training) and that there is a sufficient level of supervision for LHSs, especially in districts operating a large programme (e.g. over 1,000 LHWs). Supervisors need to be mobile, whether by having access to operational vehicles with drivers and POL, or having sufficient travel allowance and access to other forms of transport.

### **Budgets to support Phase 2 were not spent**

The Programme budget had provision for initiating developments in Phase 2 through one budget for research and another budget for relationships with NGOs. These budgets were not utilised. The Programme failed to move into Phase 2 during the period of this PC-1 (see Management Review, August 2009). Reportedly, it was difficult for the Programme to gain approval to use the 'seed' money in the budget.

### **Cost structure of the PC-1 (2003–08)**

The cost structure of the PC-1 was generally adhered to, with the exception of LHW stipends. The assumption here is that the cost structure of the PC-1 (2003–08), if implemented, would have resulted in LHWs who had the resources required to provide services, adequate supervision levels and stronger management and monitoring to allow for higher delivery of services and the implementation of Phase 2 of the PC-1.

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## Abbreviations

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
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
ECNEC	Executive Committee of the National Economic Council
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
GDP	Gross Domestic Product
GIS	Geographic Information System
GOP	Government of Pakistan
HMIS	Health Management Information System
ICT	Islamabad Capital Territory
KPI	Key Performance Indicator
LHS	Lady Health Supervisor
LHW	Lady Health Worker

LHWP	Lady Health Worker Programme
LMIS	Logistic Management Information System
MCH	Mother and Child Health
MNCH	Mother and Neo-natal Health
MHEC	Mobile Health and Education Campaign
MoH	Ministry of Health
MoF	Ministry of Finance
MTBF	Medium-term Budget Framework
NCHD	National Commission for Human Development
NGO	Non-governmental Organisation
NIDs	National Immunisation Days
NIPs	National Institute of Population Studies
NIS	New Item Statement
NP FP&PHC	National Programme of Family Planning and Primary Health Care
NWFP	North Western Frontier Province
OBSI	Optimal Birth Spacing Interval
O&M	Operations and Maintenance
PC	Provincial Coordinator
PC-1	Planning Commission 1
PHC	Primary Health Care
PLAs	Personal Ledger Accounts
POL	Petrol, Oil and Lubrication
PPIU	Provincial Programme Implementation Unit
PSDP	Public Sector Development Programme
PSU	Primary Sampling Unit
RHC	Rural Health Centre
RHP	Reproductive Health Project
RPIU	Regional Programme Implementation Unit
SDAs	Special Drawing Accounts
SoE	Statement of Expenditure
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

# 1 Overview

## 1.1 The Lady Health Worker Programme

The National Programme for Family Planning and Primary Health Care<sup>6</sup> was created in 1993. It established an organisation of female community health workers (LHWs) living in the area they serve, and providing basic primary health care. LHWs are provided with a stipend in return for their community services. They provide health education and promote improved health behaviour, including the use of basic preventive health services. They supply some types of family planning and provide some basic curative care. They are trained to identify and refer more serious cases.

In Pakistan, health service delivery, in general, is the responsibility of the provincial governments. However, the LHWP is a discrete health programme funded and managed by the Ministry of Health (MoH) in collaboration with provincial Departments of Health. The Programme is managed through a system of implementation units situated at federal and provincial level.<sup>7</sup> Below provincial level, the Programme is managed through a system of district implementation units housed in health department of facilities.

The main funding for the Programme is through the Public Sector Development Programme (PSDP) through the PC-1 (a five-year plan and budget).

## 1.2 Health sector expenditure<sup>8</sup>

This section will show how LHWP expenditure fits into the overall pattern of public health expenditure.

During the period from 2000/01 to 2007/08,<sup>9</sup> total health expenditure (both private and public) was between 2.0 percent and 2.6 percent of GDP. Government expenditure on health, as a percentage of total health expenditure, was close to 19 percent.<sup>10</sup> Government health expenditure as a percentage of GDP remained roughly constant, at close to 0.6 percent of GDP.<sup>11</sup>

The growth in the health budget between 2002/03–2007/08 has been around 16.7 percent per annum. This increase is the result of an average annual increase of 39.89 percent at the federal level, and a 13.11 percent increase at the provincial level (Table 1.1).

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<sup>6</sup> Also referred to as the Lady Health Worker Programme (LHWP).

<sup>7</sup> The Federal Programme Implementation Unit (FPIU) is in Islamabad. Provincial Programme Implementation Units (PPIUs) are located in Punjab, Sindh, NWFP, Balochistan, and Regional Implementation Units (RIU) in FATA, AJK and Northern Areas.

<sup>8</sup> The overall fiscal context is presented in Annex A.

<sup>9</sup> Ministry of Finance, Pakistan Economic Survey 2007/08, ch. 11, 'Health and Nutrition', Table 11.2.

<sup>10</sup> <http://www.who.int/nha/country/pak.pdf>

<sup>11</sup> National Health Facility Review (2007): 2.

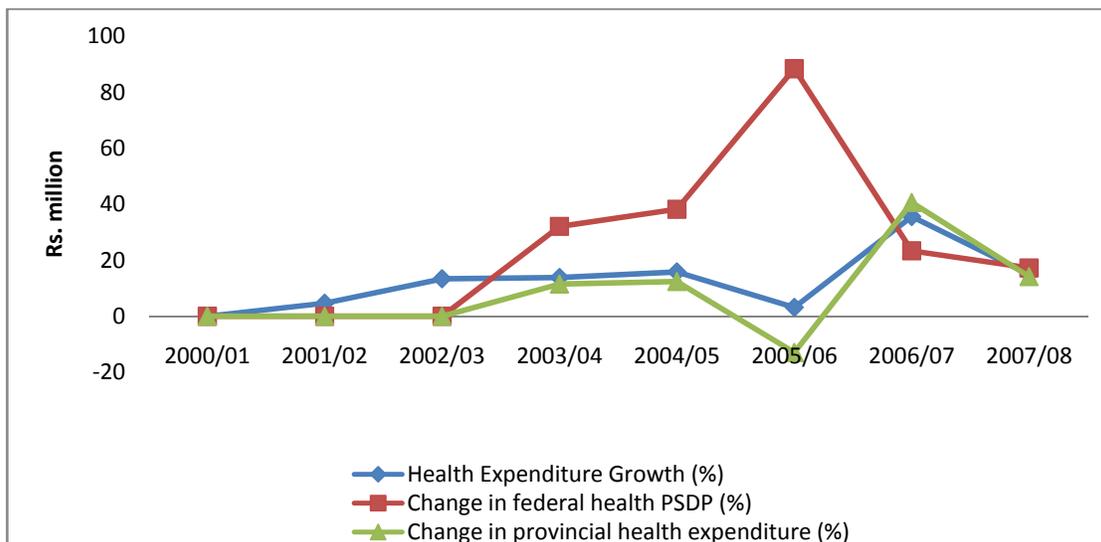
**Table 1.1 Pakistan health expenditure (federal and provincial), 2000/01-2007/08 (Rs. million)**

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Total health expenditure	24,280	25,410	28,814	32,805	38,000	39,203	53,166	61,127
Federal		–	3,09	4,372	6,044	11,392	14,054	16,479
Provincial		–	25,505	28,433	31,956	27,811	39,112	44,648
Health expenditure growth (%)	0	4.7	13.4	13.9	15.8	3.2	35.6	15.0
<b>Share of total</b>								
Total health expenditure (%)	100	100	100	100	100	100	100	100
Federal (%)	0	0	11.5	13.3	15.9	29.1	26.4	27.0
Provincial (%)	0	0	88.5	86.7	84.1	70.9	73.6	73.0
Recurrent (%)	75.5	73.7	77.1	74.1	71.1	61.2	73.9	71.9
Federal (%)	–	–	–	–	–	13.2	11.0	9.4
Provincial (%)	–	–	–	–	–	48.0	62.9	62.5
Development (%)	24.5	26.3	22.9	25.9	28.9	40.8	26.1	28.1
Federal (%)	–	–	–	–	–	15.9	15.2	17.5
Provincial (%)	–	–	–	–	–	25.0	10.9	10.5
<b>Memo items</b>								
Inflation (CPI)	–	3.54	3.1	4.57	9.28	7.92	7.77	12
Real health expenditure/capita 2000/01 (Rs.)	178	175	188	199	199	178	200	160
LHWP actual expenditure	–	–	–	2,427.02	2,951.12	3,862.18	4,945.73	4,632.62
LHWP (actual) % share of federal health expenditure	–	–	–	55.5	48.8	33.9	35.2	28

Note: 2005–06 revised numbers following earthquake in 2005.

Sources: GoP, Finance Division, Economic Survey, 2007/08; and PRSP Budgetary Expenditure for 2005–08; LHWP budget data from National Health Facility Review, 2007.

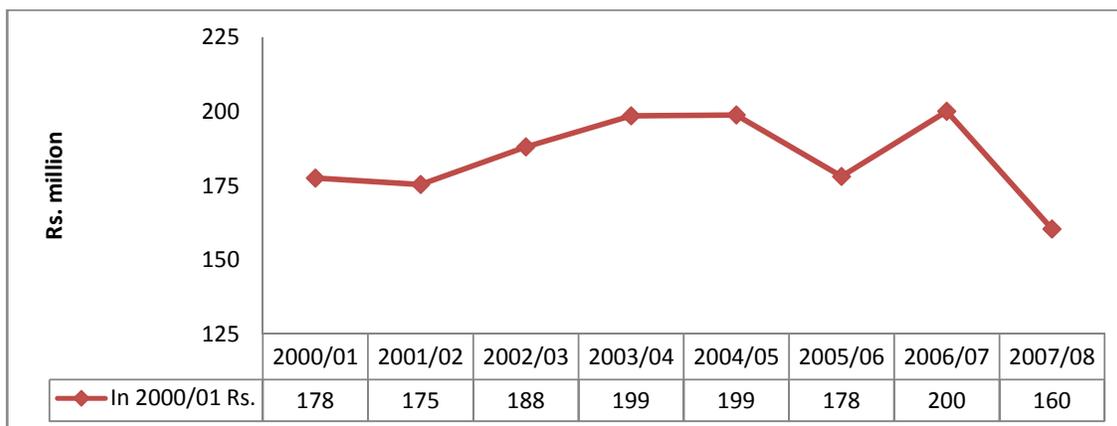
**Figure 1.1 Real health expenditure growth, including federal and provincial health expenditure**



Source: OPM LHWP Independent Evaluation, 2008.

Despite this relatively high rate of average nominal growth in overall government health expenditure, during this period the combination of high inflation and a high rate of population growth resulted in the real per capita health expenditure actually falling by 11 percent during the period 2000/01–2007/08 (Figure 1.2).

**Figure 1.2 Real health expenditure per capita (Rs.), 2000/01**



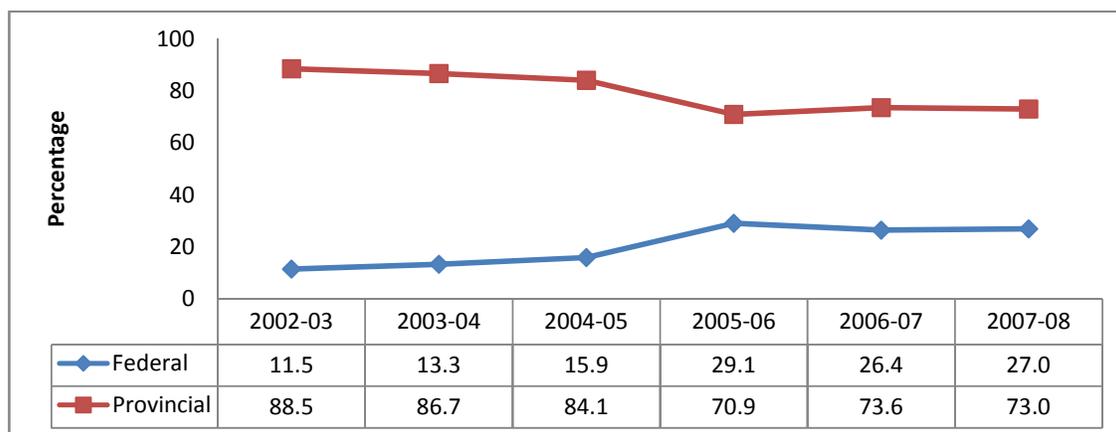
Source: OPM LHWP Independent Evaluation, Quantitative Survey Data, 2000/01 and 2008.

On average, 78 percent of total government health expenditure in Pakistan, between the years 2002/03 to 2007/08, was incurred at the provincial level. However, this figure has not been constant. The proportion of health spending at the federal level has increased dramatically, more than doubling between 2002/03 and 2007/08 (Table 1.1).

The split in federal/provincial spending has flattened off in recent years to 30:70 (federal: provincial), as compared with an average 20:80 split in the late 1990s, when the last LHWP

review was undertaken. To show the extent of these changes graphically, Figure 1.3 shows that over the period 2002/03–2007/08 there was a 15.5 percent fall in the provincial share, as compared with the increasing federal share of total health expenditures.

**Figure 1.3 Federal and provincial expenditure as a percentage of total health expenditure**



Source: Table 1.1; GoP, Finance Division, Economic Survey, 2007/08; and PRSP Budgetary Expenditure for 2005–08.

The increase in federal health budget allocations over the years under review can probably be partially attributed to funding channelled through budget support mechanisms, for example the National Health Facility funded by DFID-UK, which aimed at supporting the main development programmes. In addition the Ministry of Health was one of the pilot ministries for the Medium Term Budget Framework which also resulted in a commitment by the Government to releasing funds according to agreed budgets. A more in-depth analysis of the factors that influenced the increase in federal health budget allocations and expenditure is beyond the scope of this report. The LHWP and EPI did receive significantly increased allocations during this time period. However the LHWP still did not receive all of the funds that had been allocated and approved under the PC-1 for the time period 2003-2008.

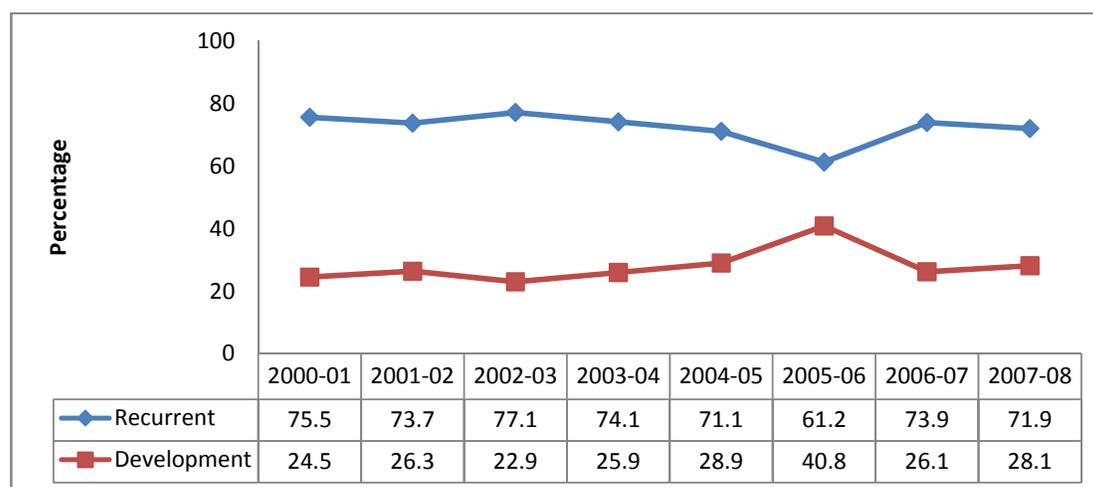
**Table 1.2 Allocation for various MoH programmes (Rs. millions)<sup>12</sup>**

Federal government	2003/04	2005/06	2006/07	2007/08
	Full-year allocation	Full-year allocation	Full-year allocation	Full-year allocation
LHWP	2,223	3,880	4,962	4,892
HIV/AIDS control	174	230	229	291
EPI	399	985	1,200	2,057
Malaria control	27	32	50	5
TB Dots			127	111

Source: Except for LHWP, the sources are the Appropriation Account (Civil) for FYs 2003/04, 2005/06 and 2006/07, and the Draft Appropriation Account (Civil) for FY 2007/08 prepared by AGPR, Islamabad; and, for LHWP, the source is the Programme Budget and Releases record endorsed by the Ministry of Finance.

In terms of the composition of spending between the recurrent and development budgets, there has also been a fall in recurrent spending from 75.5 percent of total health expenditure to 71.9 percent between 2000/01 and 2007/08, and an associated increase in development expenditure from 24.5 percent to 28.1 percent (Figure 1.4).

**Figure 1.4 Recurrent and development expenditure as a percentage of total health expenditure**



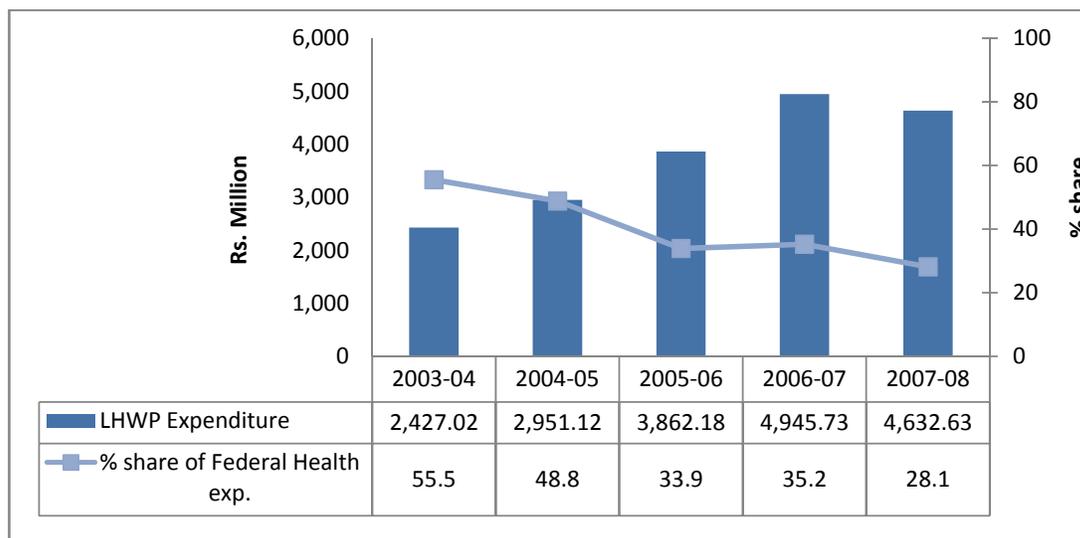
Source: Table 1.1; GoP, Finance Division, Economic Survey, 2007/08; and PRSP Budgetary Expenditure for 2005–08.

Between 2003/04 and 2007/08, there were large increases in the allocation of budgetary funds to the LHWP, from Rs. 2,600 million in 2003/04 to Rs. 4,892 million in 2007/08 (an 88 percent increase). Actual expenditure rose over this period from Rs. 2,427.02 million to Rs. 4,632.62 million (a 91 percent increase).

<sup>12</sup> There are significant increase in health programmes that reflect 'global priorities'; e.g. the Global Fund to fight AIDS, TB and Malaria (GFATM), and the Global Alliance for Vaccines and Immunization (GAVI).

However, this growth in resources for the LHWP was not as large as the near fourfold increase in spending on health at the federal level during this period, and thus, as a proportion of the federal health budget, the amount spent on the LHWP declined from 55.5 percent to 28.1 percent.

**Figure 1.5 LHWP expenditure as a share of federal health expenditure 2003/04–2007/08**



Source: Table 1.1

### 1.3 Lady Health Worker Programme evaluation

The purpose of the 4th Evaluation was to explore whether the Programme had:

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

The objectives were to:

- provide the Ministry of Health (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 their communities of working with the Programme; and

- provide findings and policy options that enable the Programme to further strengthen its performance.

To fulfil these objectives, the key outputs of the evaluation are:

- district- and community-level data collection providing national and provincial estimates through six different quantitative surveys: the DPIU, health facility, LHW, LHS, household, and community. The surveys were based on the questionnaires of the 3rd Evaluation to ensure comparability of results;<sup>13</sup>
- intensive qualitative studies; and
- reviews of management, organisational systems and units costs.

## 1.4 The financial and economic analysis

The broad objective of the financial study is to provide policy-makers with unit cost information to support strategic planning and budgeting, including an indication of areas of expenditure where changes in resource allocation could bring about improvements in efficiency and cost effectiveness.

This study was carried out between November 2008 and March 2009, and was timed to coincide with the availability of the end of year accounts for the Programme and the results from the Quantitative Field Survey. The main sources of information for this analysis were the Programme's original planning document (the PC-1), the Programme's expenditure records, and the results from the research conducted by the evaluation team.<sup>14</sup>

## 1.5 Report structure

The structure of the rest of this report is as follows: Chapter 2 analyses the planned unit cost of the Programme, 2003/04 to 2007/08; Chapter 3 examines the actual unit expenditure of the Programme, 2003/04 to 2007/08; Chapter 4 analyses the actual expenditure of the Programme in detail by level, source, and activity; Chapter 5 investigates measures to improve efficiency and effectiveness; and Chapter 6 provides an analysis of the minimum costs necessary to support the Programme, given current knowledge of Programme performance, service standards, and plans for expansion.

## 1.6 Key points

- The LHWP was created in 1993, with the objective of providing primary health care services at the community level across the country. The Programme is a federally funded programme, which is implemented in collaboration with the provincial Departments of Health through a series of implementation units;

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<sup>13</sup> 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.

<sup>14</sup> A top-down costing approach was adopted, involving collection of data at the highest available level (federal and provincial), the aggregation of total expenditures by source (government and donors) and the classification of total costs by activity and service. This approach is more likely to capture total Programme expenditure and makes best use of the time and resources available for data collection. Programme expenditure records held by the Federal Programme Implementation Unit (FPIU) Finance Office in Islamabad were the primary source of the Government of Pakistan (GoP) financial data. The main donors to the Programme provided separate expenditure reports on request of the evaluation team.

The previous financial and economic analysis verified expenditure data against audited Programme accounts. This exercise was found to be of limited value, as the audit effort was focused on a selection of transactions rather than on expressing an opinion about the veracity of the accounts for the period under review. This is still the case.

- In December 2007, the Ministry of Health commissioned an independent evaluation of the LHWP. This current financial and expenditure study is one of the instruments used by the evaluation team. It focused on providing unit cost information that will be useful for future strategic planning and budget forecasting for the Programme;
- During the period from 2000/01 to 2007/08,<sup>15</sup> total health expenditure (both private and public) was between 2.0 percent and 2.6 percent of GDP. Government expenditure on health, as a percentage of total health expenditure, was close to 19 percent.<sup>16</sup> Government health expenditure as a percentage of GDP remained roughly constant, at close to 0.6 percent of GDP.
- The growth in the overall health budget has been around 14.5 percent per annum, but the combination of high inflation and a high rate of population growth has resulted in real per capita health expenditure falling by 11 percent;
- Most health expenditure is incurred at the provincial level; however, this has been falling in recent years, as the proportion of health spending at the federal level has increased dramatically (more than doubling between 2002/03 and 2007/08);
- Spending changes in the distribution between the recurrent and development budgets has seen recurrent spending fall from 75.5 percent of total health expenditure to 71.9 percent, accompanied by an offsetting increase in development expenditure from 24.5 percent to 28.1 percent; and
- Between 2003/04 and 2007/08 there was an 88 percent increase in the allocation of budgetary funds to the LHWP, increasing from Rs. 2,600 million in 2003/04 to Rs. 4,892 million in 2007/08. However, due to the proportionally larger increase in overall health spending at the federal level, the amount provided for the LHWP as a proportion of these funds decreased from 55.5 percent to 28.1 percent.

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<sup>15</sup> Ministry of Finance, Pakistan Economic Survey 2007/08, ch. 11, 'Health and Nutrition', Table 11.2.

<sup>16</sup> <http://www.who.int/nha/country/pak.pdf>

## **2 Planned Expenditure and Unit Costs in the PC-1**

### **2.1 The PC-1 (2003–08)**

The PC-1 is the comprehensive planning document for the LHWP.<sup>17</sup> It describes the core services that the Programme will provide including the role of the LHW (see Box 2.1). The PC-1 also sets out the objectives and strategies of the Programme, together with an associated budget forecast for the financial years (FY) 2003/04–2007/08.

PC-1 funding is through the federal government Public Sector Development Programme (PSDP). The PC-1, with a budget of Rs. 21,533.502 million, was approved by the Executive Committee of the National Economic Council (ECNEC) on 7 January 2004. The request for a foreign exchange component (FEC) of US\$25.124 million (Rs. 1.5 billion) to procure contraceptives that were not available in Pakistan was not approved.<sup>18</sup>

The expenditure forecast in the PC-1 is based on the unit cost of an LHW. Major components of the unit cost are: the LHW's stipend; her supervision, including the transportation requirements of her supervisors; provision of basic drugs and contraceptives for her kit; and her training.

The PC-1 also budgets for other activities including: publicity and advocacy; Programme evaluation; the Health Management Information System (HMIS); research and funds for collaboration with partners, and Programme management.

This chapter covers the planned expenditure in the PC-1. The budget forecast in the PC-1 was based on a number of targets and assumptions, which are outlined. This is followed by an analysis of the forecast unit cost by Programme activity and the forecast unit cost of a fully operational LHWP.

### **2.2 Activities of the LHWP**

The PC-1 budget is based on a targeted number of LHWs providing services to the community. The predicted costs are based on a number of assumptions (see also Annex B).

#### **2.2.1 Recruitment and training**

- 100,000 LHWs recruited (Figure 2.1) and trained by June 2005;<sup>19</sup>
- Training of 50,000 LHWs at the cost of Rs. 50 per day for five days a week for three months (Rs. 3,000 per LHW) and a training allowance of 20 percent of basic pay to three trainers at the health facility;

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<sup>17</sup> The LHWP began in FY 1993/94. It was substantially revised in 1995 to incorporate the following main changes: The extension of the Programme to urban as well as rural areas; the upward revision of the recruitment target to 100,000 Lady Health Workers by 1998; the addition of a cadre of Lady Health Supervisors (LHSs) to guide the implementation of the Programme; a Health Management Information Systems (HMIS) component, and; a Mobile Health Education Campaign (MHEC) component.

<sup>18</sup> The FEC was meant for procurement/import of contraceptives; condoms and oral contraceptive pills through UNFPA. (Oral contraceptive pills are now being procured through Pakistani firms rather than being imported). During the course of the PC-1 period, special approvals were obtained from the Chairman ENCEC for procurement of contraceptives. There was also provision made for procurement of Injectable Contraceptives.

<sup>19</sup> Planned recruitment was for 50,000 LHWs under the PC-1, 8,000 under the Women's Health Project (WHP) and 2,200 under the Reproductive Health Project (RHP). The WHP and the RHP were funded by the Asian Development Bank (ADB).

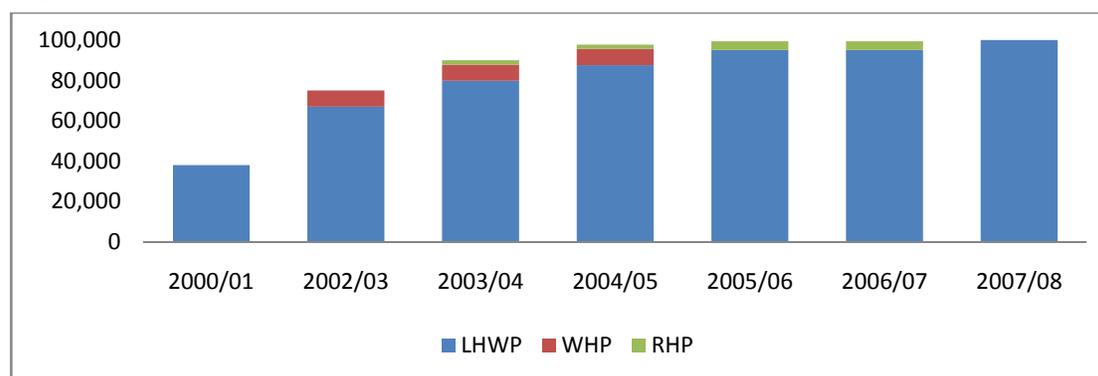
- 4,000 LHSs (together with drivers) recruited and trained by June 2005. The ratio of LHS to LHWs was set at 1:25;<sup>20</sup>
- 9,000 health officials, trained to facility-level, to train LHWs (budgeted at Rs. 53,100 million), and 900 health officials, trained to district-level, to train LHW trainers and LHSs (budgeted at Rs. 2,160 million) (Annex of the PC-1);
- Provision of 15 days' refresher training each year to all LHWs, with a total budget of Rs. 90,000. This includes a payment of Rs. 200 for the trainer and Rs. 50 for LHWs and LHSs for each day's training; and
- Printed materials for training and for the collection of information and keeping of records for both the LHWs and the LHSs. The printing budget was Rs. 203 million.<sup>21</sup>

## 2.2.2 Planned recruitment of LHWs

In its timetable for the selection and recruitment of LHWs, the PC-1 assumes there are 75,000 LHWs as at June 2003, which figure includes 8,000 LHWs recruited under the Women's Health Project (WHP).<sup>22</sup> While the PC-1 states a target of 100,000 LHWs to be recruited by June 2005, the timetable assumes 97,800, the target having been achieved one year later (Figure 2.1).

For the FY 2003/04, and 2004/05, the WHP and the Reproductive Health Project (RHP) would fund 10,200 LHWs each year: 8,000 by the WHP and 2,200 by the RHP. For FY 2005/06 and 2006/07, the RHP would fund 4,400 LHWs in both years. As the sponsorship by these Asian Development Bank (ADB) health projects was phased out, the ongoing funding of the LHWs recruited, trained and initially funded under the WHP and the RHP would become the responsibility of the Programme. The budget and expenditure of these two projects was transparent and included in the PC-1.

**Figure 2.1 Planned cumulative recruitment of LHWs, July 2003–June 2008**



Source: LHWP P-C1 (2003–08).

<sup>20</sup> The RHP budget also included funds for supervision of the 2,200 LHWs that were to be recruited.

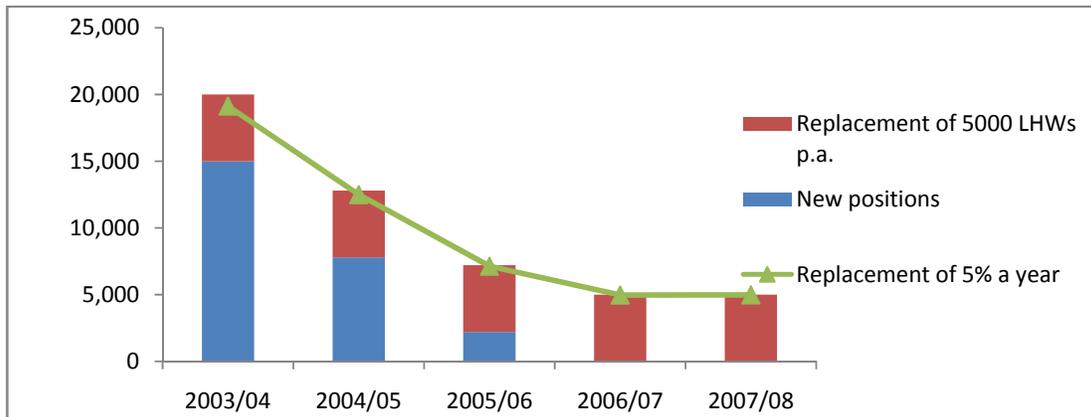
<sup>21</sup> Inclusive of contributions from the WHP (Rs. 2 million) and the RHP (Rs. 1.8 million).

<sup>22</sup> PC-1: 64.

### 2.2.3 Attrition

The PC-1 also assumes an attrition rate of 5 percent. In order to maintain the target of 100,000 LHWs in the community, the PC-1 proposes the recruitment and training of an additional 5,000 LHWs annually to replace those who have left the Programme (see Figure 2.2). This would result in the total planned recruitment of 50,000 LHWs over the five-year period. If the attrition rate of 5 percent is used, it would result in total planned recruitment of 48,765.<sup>23</sup>

**Figure 2.2 Planned total recruitment of LHWs, for new positions and for attrition**



Note: Attrition at a rate of 5000 a year or assuming replacement of 5 percent per annum.  
Source: LHWP PC-1 (2003–08).

<sup>23</sup> For the purposes of this analysis, we have used the figure for planned recruitment of 50,000 LHWs.

## **The Lady Health Worker, as envisaged in the PC-1**

An LHW will register approximately 200 households, or 1,000 clients, in her community to whom she will offer a range of preventive and promotive services, including family planning. Every working-day, she will visit from five to seven households, and she will ensure a re-visit every two months. She should be able to treat simple illnesses and refer cases to the nearest centres in accordance with given guidelines. The LHW's services are free at the point of delivery. She will also act as liaison for immunisation services. After appropriate training, she will provide immunisation coverage in her area. The LHW also participates in various campaigns for immunisation – National Immunisation Days (NIDS). The LHW will be responsible for involving the community through the development of women's groups and village health committees.

The LHW will be female, preferably married, and a permanent resident of the area for which she is recruited. She should have a minimum of eight years' schooling, and preferably have matriculated. The LHW should be between 20 and 50 years old, although between 18 and 20 years old will be acceptable if she is married. Her residence will be designated a 'health house'. The training of LHWs will be provided by health department staff working at the health facility where she was recruited. LHWs attend 15 days' refresher training annually. The Programme will supply the LHWs with a basic kit of essential drugs and contraceptives, and replenish her kit on a monthly basis through the health facility.

The LHW is a contracted employee and not a civil servant. She is paid a monthly stipend. If LHWs fail to perform to satisfactory levels even after repeated training and supportive supervision, then their contract will be terminated.

LHSs provide supervision of LHWs, the ratio being 1 supervisor to 25 LHWs (reduced to a ratio of 1:20 for difficult areas). The LHS will be provided with a vehicle, a driver and a POL allowance. Where she has no access to a vehicle, she will be provided with a travel allowance. The Supervisor is expected to visit each LHW under her supervision at least twice a month. The LHW and her LHS are inspected and supervised by Field Programme Officers (FPOs) and the management staff of the Programme's Implementation Units (PIUs) at district and provincial levels. Provincial PIU staff members are either on contract to the Programme, or have management responsibilities delegated to them by the Department of Health, in which case they receive payment of a 25 percent deputation allowance. At the DPIU level, the provincial/district Health Department deposes a doctor as District Coordinator for the LHWP. His pay and allowances are reimbursed to him by the respective provincial/district government, and financial incentives are paid from the LHWP. Aside from vehicles for LHSs, other vehicles will also be provided: 1 for each Field Programme Officer (for Programme monitoring), 1 per DPIU (for monitoring and co-ordination), and 3 or 4 per PPIU. In areas with difficult road access, Suzuki Jeeps will be provided rather than Suzuki Pick-Ups. Vehicles will be replaced after ten years.

Programme implementation units will share local Department of Health accommodation at district level. Apart from vehicles, the Programme will not make any significant capital purchases.

### **2.2.4 Planned recruitment of LHSs**

While the PC-1 does not outline the recruitment plan for LHSs, it is assumed that they are recruited at the same rate as LHWs, at the target ratio proposed by the PC-1 of 1:25.

## **2.3 Medicines and contraceptives for LHWs to distribute**

Medicines worth Rs. 5,461.421 million were to be procured and distributed to LHWs under the PC-1.<sup>24</sup> This includes a budget for contraceptives of Rs 1,509.213 million. While the Programme policy is for the LHW to be supplied on a replenishment basis, for the purposes of budgeting the PC-1 defines the average monthly requirement of the LHW for medicines and contraceptives. The number of working LHWs drives the annual forecast for purchasing of drugs and contraceptives.

## **2.4 Transportation**

Vehicles worth Rs. 1,274.559 million were to be procured for supervision.<sup>25</sup> This was in addition to the 2,084 vehicles on record as having been purchased by the Programme in the previous decade. If vehicles could not be purchased, this budget was to be utilised for a fixed travel allowance for supervision and monitoring (FTA) of Rs. 70 per field day. In addition to the purchase of vehicles, there is the expense of repair and maintenance to keep them operational. This was budgeted at Rs. 469.504 million in the PC-1.<sup>26</sup>

The PC-1 specified an economic life for vehicles of seven years. Vehicles over ten years old were to be disposed of. The budget for repair and maintenance of Rs. 469.504 million is allocated between the federal, provincial and district levels of the Programme.

## **2.5 Programme evaluation**

Two independent evaluations were planned for monitoring purposes, to be conducted at the end of 2005 and 2008. These had a token budget, the aim being that the funding of the evaluations would be provided by development partners.

## **2.6 Proposals in the PC-1 without budget**

It was proposed that a GIS would be developed and maintained by the Programme. This was not budgeted for.

### **2.6.1 Capital expenditure**

Capital expenditure in the PC-1 is relatively low. Office accommodation and warehousing is either rented at the federal and provincial level, or shared with provincial Health Departments at district and facility level. The main capital investments are the training of LHWs and the purchase of vehicles: a vehicle is budgeted for each LHS.<sup>27</sup>

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<sup>24</sup> Inclusive of contributions from the WHP (Rs. 55 million) and the RHP (Rs. 183 million).

<sup>25</sup> In addition, the RHP would contribute Rs. 58 million for purchase of vehicles.

<sup>26</sup> In addition, the RHP would contribute Rs. 41.422 million.

<sup>27</sup> Further details are given in Annex B.

## 2.6.2 The budget forecast in the PC-1

The PC-1 sets out the Programme's expected budgetary requirements to meet for planned expansion over the period 2003/04–2007/08 (Table 2.1).<sup>28</sup> The federal government provides the funds for the Programme at the federal, provincial and district levels.

**Table 2.1 Budget forecast, 2003/04–2007/08**

	2003/04	2004/05	2005/06	2006/07	2007/08	Total
PC-1 request (Rs. million)	4,493.591	3,913.643	4,080.083	4,403.134	4,643.05	21,533.501
PC-1 budget request, inclusive of funds from the WHP and RHP	4,720.719	4,180.159	4,209.675	4,557.509	4,772.599	22,460.660

Source: PC-1, Ministry of Health, 2004.

## 2.6.3 Chart of account heads

The Programme's basic cost structure has not been altered substantially over the life of the Programme.

The Chart of Accounts (COA) has a different structure than the PC-1. Since the government account headings changed in 2004, forecast expenditure in the PC-1 and reported expenditure are not directly comparable between the two documents. For example, the account classifications lump the stipends of the LHWs, LHSs and drivers together with other contract staff into one category. The information on how much was spent on LHW stipends is not easy to identify, and yet it is the major expenditure of the Programme.

## 2.6.4 Capital and recurrent expenditure

The line items in the PC-1 budget forecast can be categorised as either capital (inputs that last longer than one year; e.g. training, LHW kits and vehicles, computers, and other assets), or recurrent expenditure (resources used during the course of one year; e.g. salaries/stipends, drugs and medicines, contraceptives, and vehicle running costs).

For the purpose of this report, only vehicles will be regarded as a capital expenditure for the following reasons:

- the amount spent on the other capital items is very small and, while there is a stock register, this does not record the price or the date of purchase;
- the Programme has no assumptions of the economic life of these assets;
- training has been categorised as a recurrent cost, as the investment in professional skill development is ongoing, with 15 days' refresher training for each LHW per annum; and
- refresher training reported accounts for 95 percent of the training budget.

<sup>28</sup> The budget is shown in greater detail in Table 2.4.

## **2.7 Analysis of the PC-1 budget projection**

This analysis of the PC-1 budget projection considers three questions:

1. What is the unit cost of the LHWP implicit in the PC-1 budget compared to the stated cost of Rs. 44,921 in Annex C-A?
2. Is the overall PC-1 budget consistent with the standard cost structures and targets presented elsewhere in the PC-1 and with the projected LHW recruitment pattern?<sup>29</sup>
3. How does the cost structure compare with the cost structure presented in the previous Finance and Economic Report?

### **2.7.1 Unit cost per LHW per year**

The assumed unit cost per LHW per year can vary depending on the calculating method used. Here, we present three ways of arriving at the unit cost and their results:

#### **Annex C-A**

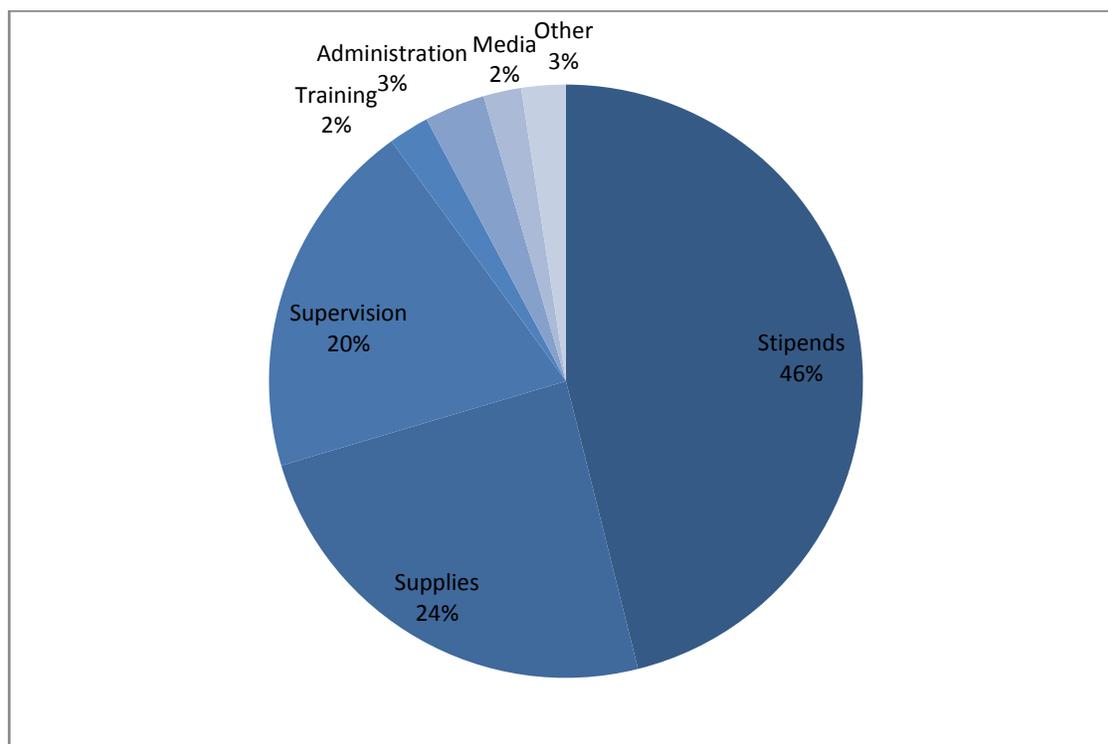
In Annex C-A, the PC-1 provided a table that projected the average 'expenditure per LHW per year' at Rs. 44,921.<sup>30</sup> The main components of this cost were LHW stipends representing 46 percent of the total unit cost, drugs and contraceptives at 24 percent, training at 2 percent, and supervision at 20 percent (Figure 2.3). LHW stipends, essential drugs and contraceptives are the main planned expenditure items, together accounting for around 70 percent of the five-year budget.

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<sup>29</sup> For example, projected training expenditures should be consistent with the LHW recruitment pattern, and the budget should reflect the need to purchase and run vehicles according to the rate of LHS recruitment.

<sup>30</sup> Actually added up incorrectly to Rs. 44,041: the total should be Rs. 44,921.

**Figure 2.3 PC-1 planned expenditure per LHW, per year, by activity, in accordance with Annex C-A**



Source: PC-1 (2003–08: 69).

### **Average number of LHWs working**

For further calculations on unit cost, we need the average number of LHWs working per year. The PC-1 specified targets for the number of LHWs to be working by the end of each financial year. Recruitment occurs throughout the year, its timing depending on a number of factors; e.g. lifting of bans on recruitment, micro-planning at district level, and length of time of the recruitment process. Because of this, the number of LHWs working has been taken as the average between the target at the end of the previous financial year and the target for the current financial year (Table 2.2).

### **PC-1 budget unit cost**

An alternative costing provided in the PC-1 is calculated by dividing the total projected five-year budget of Rs. 21,533.502 million by those five years, giving Rs. 4306.698 million per year. This can then be divided by the average number of planned LHWs working per year; i.e. 88,180. This gives us an average annual cost per LHW of Rs. 48,840 (Table 2.2).<sup>31</sup>

<sup>31</sup> The average unit cost of one LHW, calculated in the previous Finance and Economic study, was Rs 41,399 for the period covering mid-FY 1993–1997/98.

**Table 2.2 PC-1 projected unit costs per LHW of the programme funded by the GoP**

Fiscal year	2003/04	2004/05	2005/06	2006/07	2007/08	Total	Average
Total expenditure (Rs. million)	4,493.59	3,913.64	4,080.08	4,403.13	4,643.05	21,533.49	4,306.70
Planned no. of LHWs working by end of year funded by GoP	79,800	87,600	95,000	95,000	100,000	–	–
Average number of planned LHW working during each year	73,400	83,700	91,300	95,000	97,500	440,900	88,180
Cost per LHW (Rs.)	56,310.66	44,676.29	42,948.24	46,348.78	46,430.5	48,840	48,840

Source: PC-1 (2003–08).

**PC-1 budget including WHP and RHP funding**

The budget from the RHP/WHP increases the overall budget to Rs. 22,460.66 million. If this is divided by five years, we have Rs. 4,492.132 million per year. The average number of LHWs working per year increases to 94,280. So the unit cost of an LHW is Rs. 47,375 per annum. This is just a little less than the cost without the RHP and WHP funding (Table 2.3).

**Table 2.3 PC-1 projected unit costs per LHW of the Programme, including those funded through WHP and RHP**

Fiscal year	2003/04	2004/05	2005/06	2006/07	2007/08	Total	Average
Total expenditure (Rs. million) (1)	4,720.72	4,180.16	4,209.68	4,577.51	4,772.60	22,460.67	4,492.13
Planned no. of LHWs working by end of year funded by GoP and WHP/RHP	90,000.00	97,800.00	99,400.00	99,400.00	100,000.00	486,600.00	97,320.00
Planned average no. of LHWs working by year including those funded by RHP/WHP (2)	82,500.00	93,900.00	98,600.00	99,400.00	99,700.00	474,100.00	94,820.00
Cost per LHW (Rs.)	57,220.84	44,517.14	42,694.47	46,051.40	47,869.60	–	47,375.38

Note: Total expenditure includes Rs. 325 million from the WHP and 602.158 million from the RHP); the planned average number of LHWs working per year included the WHP and the RHP recruitments. The average is between the target number of LHWs working at the end of the previous financial year and the target for the current financial year.

Source: PC-1 (2003–08).

## 2.8 Differences in unit costs

As can be seen, there is little variance in unit cost, whether it is that provided in Annex C-A or the unit cost implicit in the PC-1 budget, or the unit cost implicit in the PC-1 budget inclusive of the ADB programme's funding.<sup>32</sup>

### 2.8.1 Internal consistency

The PC-1 budget of Rs. 21,533.501 million, its size and its phasing remain relatively consistent with the planned number of LHWs to be employed and their associated costs as described and in the PC-1. The variation in unit cost per LHW in different years is explained partly by planned vehicle procurement. However, there are also 'lumpy' procurement patterns for training (see Table 2.4)

**Table 2.4 PC-1 projected unit costs per LHW of the Programme funded by the GoP through the PC-1**

<b>Fiscal year</b>	<b>2003/04</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>
Total expenditure (Rs. million)	4,493.59	3,913.64	4,080.08	4,403.13	4,643.05
Planned vehicles expenditure (Rs. million)	808.24	81.98	0.00	326.35	0.00
Total expenditure less vehicles (Rs. million)	3,685.35	3,831.67	4,080.08	4,076.78	4,643.05
Planned average no. of LHWs working by end of year funded by GoP	73,400.00	83,700.00	91,300.00	95,000.00	97,500.00
Cost per LHW (Rs.) less vehicles	46,182.40	43,740.50	42,948.24	42,913.50	46,430.50

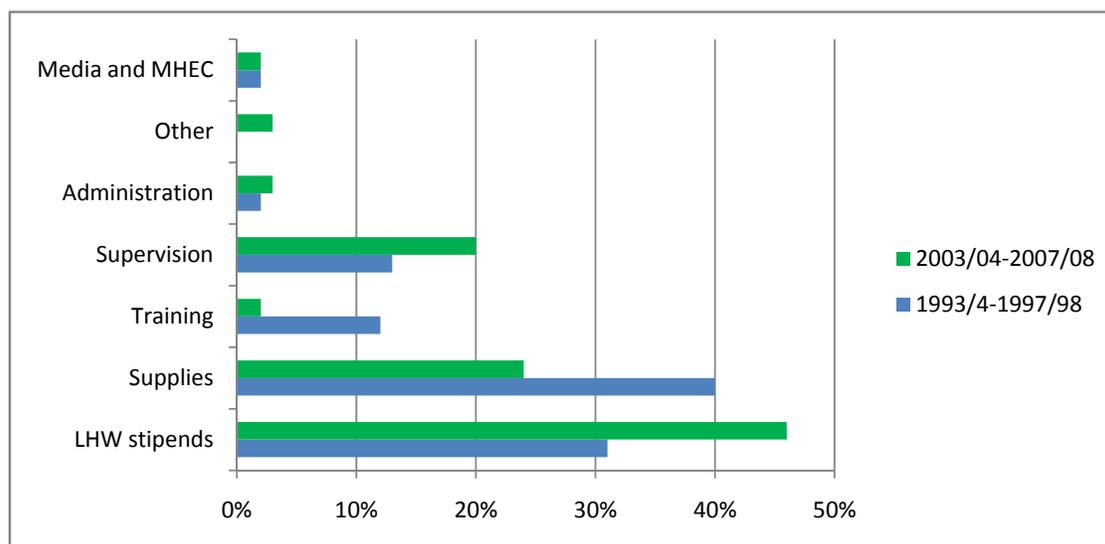
Source: PC-1 (2003–08); and Statements of Expenditure from the FPIU.

## 2.9 Comparing the cost structure from 1993/94–1997/98

The planned budget allocations from the initial establishment of the Programme had a significantly greater percentage of the budget being used for supplies and training. The new budget allocations for 2003/04–2007/08 had a higher proportion budgeted for LHW stipends and supervision. In the previous period, the Programme had the authority to reallocate budget between line items.

<sup>32</sup> The ADB contribution also included their particular administrative costs.

**Figure 2.4 Comparison of planned budget allocation against activity between the 1st Evaluation (1993/94–1997/98) and 2003/04–2007/08**



Source: Annex C-A of the PC-1; and the Finance and Economic Analysis, March 2002.

## 2.10 Forecast unit cost by activity

We have used the cost of Rs. 48,840 per LHW per year (Table 2.2) based on the planned budget by the GoP in order to analyse the forecast unit cost of an LHW.

### 2.10.1 Medium-term budget framework

In 2005/06, the LHWP budget process became included as part of a pilot in the initial stages of the introduction of the medium-term budget framework (MTBF) being developed by the Ministry of Finance.

This led to a parallel classification of the budget on the basis of activities conducted by the Programme (Table 2.3). This list is more suitable for management purposes than the Chart of Accounts or the budget provided in the PC-1, as it focuses on outputs instead of economic classification. We have used this as the basis for the planned unit cost of the LHW by activity/input.

This list is different than those provided in Annex C of the PC-1 (Table 2.5) and the previous Finance and Economic Analysis, March 2002.

**Table 2.5 Medium-term budget framework presentation of the PC-1 budget for the GoP, excluding WHP and RHP**

<b>Activity</b>	<b>PC-Code</b>	<b>2003/04</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>Total</b>
<b>Management and monitoring</b>		<b>184.942</b>	<b>187.532</b>	<b>184.729</b>	<b>207.783</b>	<b>232.995</b>	<b>997.982</b>
Salaries, allowances, honorariums	A-1	77.063	82.843	89.056	95.735	102.916	447.613
Project allowance	A-4	22.221	23.888	25.680	27.606	29.676	129.071
Travel allowance/daily allowance	D-1	25.593	25.543	25.543	25.493	25.493	127.665
Repairs of vehicles (FPIUs, PPIUs, FPOs and DCs)	C-1	23.376	19.822	11.907	16.834	22.782	94.721
POL	D-3	36.689	35.436	32.543	42.115	52.128	198.912
Pension contributions of staff on deputation		0.000	0.000	0.000	0.000	0.000	0.000
<b>Direct supervision</b>		<b>412.721</b>	<b>442.381</b>	<b>482.487</b>	<b>503.096</b>	<b>533.724</b>	<b>2374.408</b>
Salaries (LHSs + Accounts Supervisors)	A-3	140.818	149.556	160.839	172.983	188.220	812.416
Drivers' salaries	A-6	123.283	129.679	139.505	147.970	159.264	699.701
POL	D-3	91.164	100.074	111.727	111.727	114.240	528.931
Repairs of vehicles	C-1	57.456	63.072	70.416	70.416	72.000	333.360
Fixed travel allowance for LHSs		0.000	0.000	0.000	0.000	0.000	0.000
<b>LHW salaries</b>	<b>A-2</b>	<b>1604.880</b>	<b>1746.320</b>	<b>2004.870</b>	<b>2156.159</b>	<b>2345.393</b>	<b>9857.622</b>
<b>Transportation of medicines and other items</b>	<b>D-2</b>	<b>8.094</b>	<b>8.094</b>	<b>8.094</b>	<b>8.094</b>	<b>8.094</b>	<b>40.470</b>
<b>Rent of office building and warehouse</b>	<b>D-5</b>	<b>9.180</b>	<b>9.869</b>	<b>10.609</b>	<b>11.404</b>	<b>12.260</b>	<b>53.322</b>
<b>Capacity-building (skill development of LHWs and trainers)</b>		<b>245.876</b>	<b>21.594</b>	<b>221.021</b>	<b>4.246</b>	<b>241.948</b>	<b>734.685</b>

*Planned expenditure and unit costs in the PC-1*

<b>Activity</b>	<b>PC-Code</b>	<b>2003/04</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>Total</b>
Training workshops/domestic training (refresher training of LHWs, trainers)	H	154.082	0.000	165.638	0.000	178.061	497.781
Training materials	D-4	54.294	21.594	55.383	4.246	63.887	199.404
Initial training cost	D-7	37.500	0.000	0.000	0.000	0.000	37.500
Training allowances (20% of basic pay)		0.000	0.000	0.000	0.000	0.000	0.000
<b>Purchases of drugs and contraceptives</b>	<b>D-9</b>	<b>1005.382</b>	<b>1229.546</b>	<b>973.856</b>	<b>986.793</b>	<b>1027.844</b>	<b>5223.421</b>
Drugs		768.471	944.375	666.749	657.749	676.864	3714.208
Contraceptives		236.911	285.171	307.107	329.044	350.980	1509.213
Non-drug items							0.000
<b>Procurement of vehicles</b>	<b>B-1</b>	<b>808.236</b>	<b>81.975</b>	<b>0.000</b>	<b>326.348</b>	<b>0.000</b>	<b>1216.559</b>
<b>Procurement of other assets</b>	<b>B-2</b>	<b>19.000</b>	<b>-0.500</b>	<b>-0.500</b>	<b>-0.500</b>	<b>19.500</b>	<b>37.000</b>
<b>Evaluations HMIS/computer equipment</b>	<b>D-6</b>	<b>3.000</b>	<b>3.000</b>	<b>8.000</b>	<b>3.000</b>	<b>10.000</b>	<b>27.000</b>
<b>Media campaign/Health Education campaign</b>	<b>D-8</b>	<b>80.000</b>	<b>86.000</b>	<b>92.450</b>	<b>99.384</b>	<b>106.838</b>	<b>464.672</b>
							0.000
<b>Maintenance of assets other than vehicles</b>	<b>C-2</b>	<b>4.800</b>	<b>4.700</b>	<b>4.700</b>	<b>4.650</b>	<b>4.650</b>	<b>23.500</b>
							0.000
<b>Research and pilot studies</b>	<b>E</b>	<b>5.000</b>	<b>5.000</b>	<b>5.000</b>	<b>5.000</b>	<b>5.000</b>	<b>25.000</b>
<b>Collaboration with NGOs</b>	<b>F</b>	<b>10.000</b>	<b>9.000</b>	<b>5.000</b>	<b>2.000</b>	<b>4.000</b>	<b>30.000</b>
<b>Entertainment charges</b>	<b>G</b>	<b>1.000</b>	<b>1.000</b>	<b>1.000</b>	<b>1.000</b>	<b>1.000</b>	<b>5.000</b>

Activity	PC-Code	2003/04	2004/05	2005/06	2006/07	2007/08	Total
Contingencies/operating expenses		91.480	78.132	78.767	84.677	89.805	422.861
<b>Total</b>		<b>4,493.591</b>	<b>3,913.643</b>	<b>4,080.083</b>	<b>4,403.134</b>	<b>4,643.051</b>	<b>21,533.502</b>

Source: FPIU, Ministry of Health.

### 2.10.2 Unit cost by activity

Table 2.6 shows the projected average unit cost for each of these LHWP activities over the five years covered by the PC-1 using the total projected LHWP unit cost of Rs. 48,840 and dividing it amongst the various Programme activities based on the MTBF. For the purpose of this analysis, some of the activities have been aggregated so as to simplify presentation and to focus on the larger items of expenditure.

**Table 2.6 PC-1 unit cost by activity/input, 2003–08**

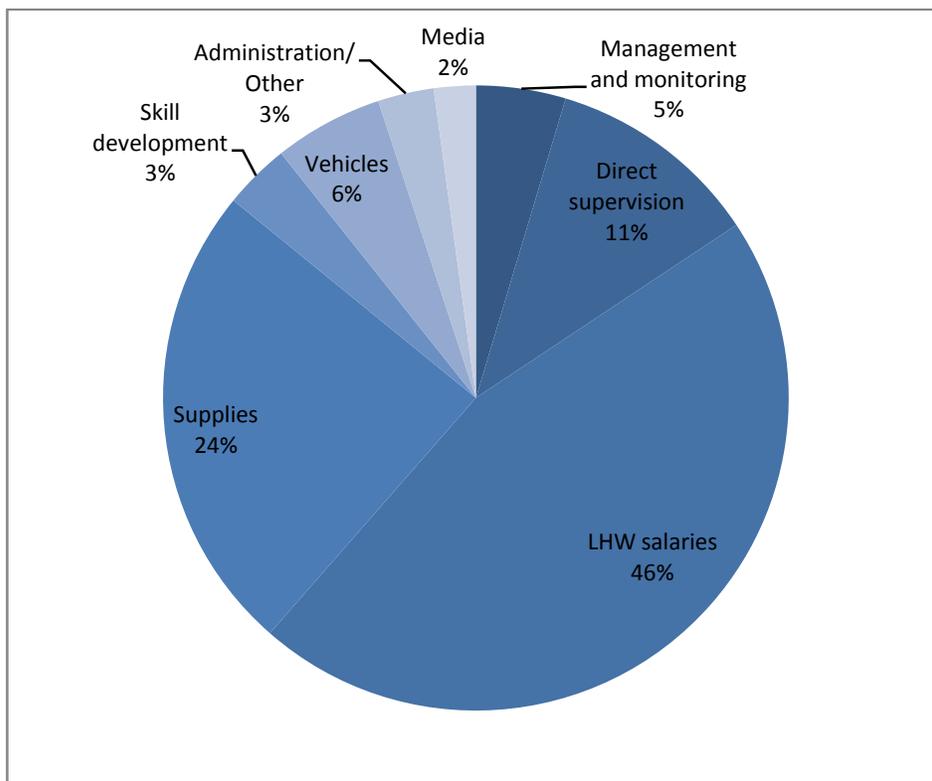
Activity	% share	Equals approximate unit cost per activity in Rs.
Management/monitoring	4.63	2,264
Direct supervision	11.03	5,385
Vehicle procurement	5.65	2,759
LHW salaries	45.78	22,358
LHW supplies <sup>33</sup>	24.45	11,939
Capacity-building	3.41	1,666
Administration/other <sup>34</sup>	2.9	1,415
Media campaign/Health Education campaign	2.16	1,054
<b>Total unit cost per LHW</b>		<b>48,840</b>

Source: Share percent from the MTBF budget table 2.5; and unit cost calculation from Table 2.2.

<sup>33</sup> Procurement of drugs and contraceptives, and transportation of medicines and other items.

<sup>34</sup> Rent of office building and warehouse; procurement of other assets; evaluations/HMIS/computer equipment; maintenance of assets other than vehicles; research and pilot studies; collaboration with NGOs; entertainment charges; contingencies/operating expenses.

**Figure 2.5 Unit cost per LHW, by activity/input, 2003–08, MTBF classification**



Source: Table 2.6.

### 2.10.3 PC-1 and development partners

The LHWP does receive funding or technical assistance from development partners. In the previous evaluation, this was estimated to be approximately 11 percent of the expenditure. The projected funds from the ADB programmes were included in the PC-1. In addition, there was an assumption that development partners would fund the two external evaluations. It was also expected that Rs. 8 billion of foreign exchange would be provided by donors and/or lending agencies to fund the purchase of contraceptives. However, this was not approved by ECNEC as there was no formal agreement between the donors and the government. The consequence was that development partners' planned expenditures could not be included in the PC-1.

Development partner contributions are considered by the Programme to be peripheral to the core funding required to run the Programme. These contributions can be unpredictable. The Programme does not account for and does not require the donors to account for the funds or assistance provided by the development partners. This results in the planned unit cost being understated.

Each development partner requires accountability from the Programme as a part of their contractual arrangements. However, there is an issue with regard to the Programme accounting for the overall use of funds and/or sponsorship received to the government and to the public. The responsibility of the Programme is not only for that of public funds. There needs to be accountability for the full range of responsibilities.

## 2.11 Key points

- The PC-1 is a comprehensive planning document for the LHWP, approved by the ECNEC on 7 January 2004;
- The PC-1 remains the Programme's main planning document. The actual share of expenditure for salaries/stipends and supervision was higher than planned, while that of supplies and training was lower;
- The budgetary requirements for the Programme in the PC-1 for the period 2003-08 were Rs. 22,460.66 million. Budgets for the funds to be received from ADB through the WHP and RHP were included as separate and aggregated budgets in the PC-1;
- LHW stipends and drugs/contraceptives in the PC-1 together account for around 70 percent of the planned budget;
- The unit cost (per LHW) during the period in accordance with the PC-1, ranges from Rs. 44,921 (Annex C-A), to Rs. 48,840 (PC-1 budget), to Rs. 47,375 (with ADB funding) depending on the calculation method used. We have used the unit cost figure of Rs. 48,840;
- There are funds and technical assistance provided by development partners that are not budgeted for in the PC-1 and are unaccounted for by the Programme. This leads to a lack of accountability by the Programme and needs to be remedied.

### 3 Actual unit cost

#### 3.1 Growth of the LHWP

To analyse actual expenditures, one should first look at actual LHW recruitment over the life of the Programme because the number of LHWs employed by the Programme determines the total costs of the Programme (LHW stipends, drugs and contraceptives, and training). Similarly, the rate at which costs grow depends on the rate at which LHWs are recruited. The items listed represent around 72 percent of planned Programme expenditure (see Figure 2.3). In addition, in the PC-1 there is an assumption that LHSs will be recruited at a ratio of 1 to every 25 LHWs. This means that LHW numbers also drive LHS salaries, vehicle purchases, vehicle running costs, and the recruitment of drivers – costs that represent an additional 20 percent of projected expenditure.

Despite the recruitment process being an important driver in achieving the targeted number of LHWs, the FPIU does not have readily accessible information on the number of LHWs recruited for each financial year. The recruitment figures presented here are assumed on the basis of the number of additional LHWs working and being trained at the end of the financial year in relation to the previous year, less those leaving the Programme during that year (Table 3.1).

For example, in June 2005 there were 78,595 LHWs recorded as working and an additional 4,685 completing their three months' basic training. This was 10,382 more than the number of LHWs working and in training in the previous June. In addition, 4,133 LHWs had left the Programme, and so 14,515 LHWs must have been recruited.

**Table 3.1 Assumed recruitment of LHWs, 2003/04–2007/08, including those funded by the RHP and WHP**

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Working at end of FY including RHP and WHP	70,738	69,690	78,595	85,620	87,119	89,125
Plus LHWs in training	4,300	3,208	4,685	1,293	2,047	949
Total of LHWs working and in training	75,038	72,898	83,280	86,913	89,166	90,074
No. of LHWs leaving the Programme during the course of the FY	6,684	849	4,133	3,697	2,126	5,366
Assumed recruitment	–	-1,291	14,515	7,330	4,379	6,274

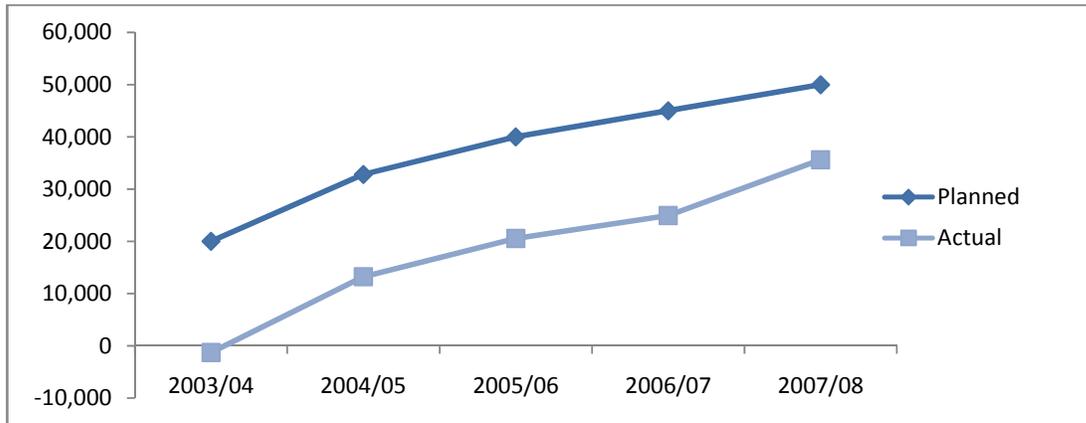
Note: The negative figure in the year 2003/04 can only result from inaccuracies in the database, including its not being up-to-date.

Source: PSP database, FPIU, January 2009.

Between 2003/04 and 2007/08, recruitment of LHWs was less than had been envisaged in the PC-1 (Figure 3.1).<sup>35</sup>

<sup>35</sup> See Annex C.

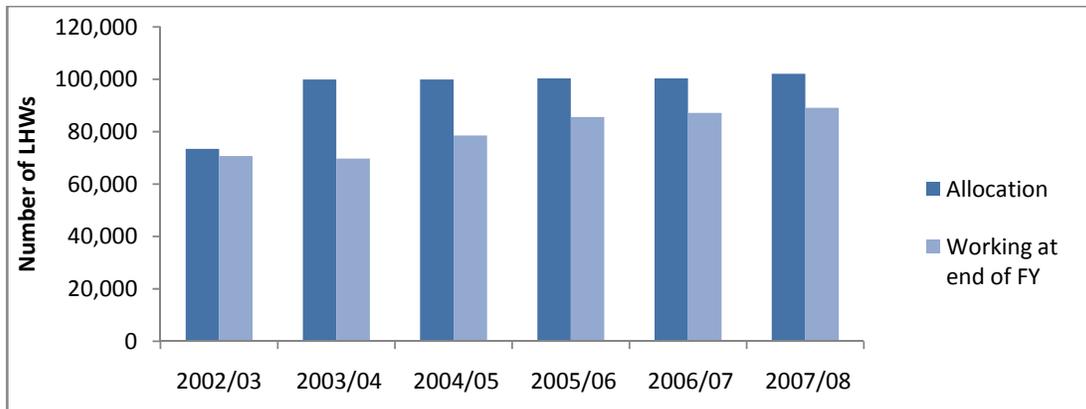
**Figure 3.1 Cumulative planned recruitment versus the assumed actual recruitment of LHWs, 2003/04–2007/08**



Source: Planned recruitment, according to the PC-1, and actual recruitment, according to the LHW Database, FPIU, LHWP

The actual numbers of LHWs working from the end of the financial year 2002/03 are shown in Figure 3.2 and Table 3.1. By June 2008, the number of LHWs recorded as working for the Programme was 89,125. The LHS strength was approximately 3,583, which represents a ratio of LHSs to LHWs of 1:25.<sup>36</sup>

**Figure 3.2 Number of allocated posts versus number of LHWs working at the end of each financial year, including the WHP and RHP, 2002–08**



Source: PSP database January 2009, FPIU.

<sup>36</sup>The number of LHWs and LHS working at the end of each financial year was provided by the FPIU of the LHWP in January 2009. These include LHWs funded by the WHP and RHP. By mid-2008, all LHWs were being funded from the LHWP budget. Further details are provided in Annex C. The FPIU also provided the information on the number of LHWs allocated to each province, and these were added to provide the total for the Programme.

The Quantitative Surveys found a ratio of 1 LHS to 23 LHWs. The survey was in the field from July to November 2008.

The LHWP categorises LHWs who leave the Programme as either ‘drop-outs’ or ‘terminations’.<sup>37</sup> The main cause for termination is non-residency, but LHWs are also terminated for non-performance. ‘Drop-outs’ defines those who voluntarily resign. However, there are LHWs incorrectly recorded as drop-outs whose employment was effectively terminated.<sup>38</sup>

At the time of the previous evaluation, the LHWP kept records for each batch of recruited LHWs, and recorded drop-outs and terminations of LHWs against each batch. This information was used to calculate an average turnover rate of around 5 percent during the period covered by the previous evaluation.

The LHW average turnover rate during the period 2003–08 is 4 percent. This has been calculated using the PSP database. The number of LHWs leaving each year was divided by the average number of LHWs recorded as working for the year.<sup>39</sup> This is a percentage point lower than recorded in the previous evaluation. A lower turnover is not necessarily positive if it is the result of not being able to terminate LHWs who are not providing a service.

**Table 3.2 LHWs annual turnover, including those funded by WHP and RHP**

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Working at end of FY	70,738.0	69,690.0	78,595.0	85,620.0	87,119.0	89,125.0
Average working LHWs for that FY (1)	–	70,214.0	74,142.5	82,107.5	86,369.5	88,122.0
No. of LHWs leaving the Programme during the FY	–	849.0	4,133.0	3,697.0	2,126.0	5,366.0
Turnover (%)	–	1.2	5.6	4.5	2.5	6.1

Source: PSP database January 2009, FPIU.

### 3.2 LHWP unit cost: planned versus actual

As the Programme expanded, did it manage to fund the services of the LHWs fully?

In the previous Financial and Economic study (2001), covering the period between the start of the Programme (in 1994/95) and 2000/01, there had been a significant decline of over 50 percent in real unit costs. Typically, when large programmes expand, real unit costs fall. In this case unit costs should have remained fairly stable: as start-up costs were relatively small there was low infrastructure expenditure, and capital costs (vehicles and training) tended to be provided at the time of recruitment. In fact, the decline was judged to be the result of underfunding of the Programme.

In the period currently under study, the cost structure remained the same. There is very little capital infrastructure, and main capital costs are still training and vehicles, which are purchased after recruitment of LHWs and LHSs. The budget for the PC-1 was realistically based on the ten years’ experience gained, since the start-up of the Programme and the analysis conducted by the 3rd Evaluation.

<sup>37</sup> LHWs that leave during their first three months’ basic training are not recorded as having left the Programme. The figure for LHWs that drop out or whose employment is terminated is set against the figure for working LHWs (i.e. those who are being paid their full stipend).

<sup>38</sup> This is not surprising, as it is common management practice to provide the option of resigning rather than being fired.

<sup>39</sup> These figures include the number of LHWs funded by the RHP and WHP.

Table 3.3 compares average expenditure per LHW, planned and actual, over the financial years 2003/04 to 2007/08. It uses the Statements of Expenditure (SoEs) for spending through the government's development programme and the number of LHWs that were funded through that programme. The average actual cost per LHW per year for the period was around Rs. 48,000 compared with the projected cost of Rs. 49,327.

Note that:

- The unit costs are indicative annual averages. They are sensitive, in particular, to the assumed level of LHW recruitment (including the date of recruitment) and the assumed point at which new recruits begin to be supplied with medicines and contraceptives;
- The assumption would be for LHW unit costs to decrease as the Programme expands. However, the actual cost per LHW (in nominal terms) increased continuously from 2003/04 to 2006/2007, and only decreased slightly in 2007/08; and
- The average actual LHW unit costs are higher (in nominal terms) than the average projected costs in the PC-1 for FY 2005/06 until FY 2007/08. However, the actual was lower than that planned for 2003/04 and 2004/05.

**Table 3.3 Planned and actual unit cost, by government funding<sup>40</sup>**

Financial Year	2003/04	2004/05	2005/06	2006/07	2007/08
<b>Planned</b>					
Total expenditure (Rs. million)	4,493.59	3,913.64	4,080.08	4,403.13	4,643.05
No. of LHWs at end of FY funded by LHWP	79,800.00	87,600.00	95,000.00	95,000.00	100,000.00
Average no. of LHWs (1)	73,400.00	83,700.00	91,300.00	95,000.00	97,500.00
Cost per LHW (Rs.)	61,220.59	46,757.98	44,688.75	46,348.78	47,621.03
<b>Actual</b>					
Total expenditure (Rs. million)	2,427.02	2,951.12	3,862.18	4,945.73	4,632.63
No. of LHWs at end of FY funded by LHWP (2)	64,650.00	77,350.00	83,525.00	84,774.00	87,133.00
Average no. of LHWs (1)	64,562.00	70,912.00	80,437.50	84,149.50	85,953.50
Expenditure/LHW (Rs.)	37,592.04	41,616.61	48,014.69	58,773.18	53,896.91

Notes: This is calculated as the average number of LHWs at the end of the consecutive financial years, funded by the LHWP (exclusive of those funded by RHP and WHP); see Annex C for numbers of GoP-funded LHWs, by year. Annex C also includes the numbers of GoP-funded LHWs, and the ADB projects, the WHP and the RHP used when calculating turnover and assumed recruitment.

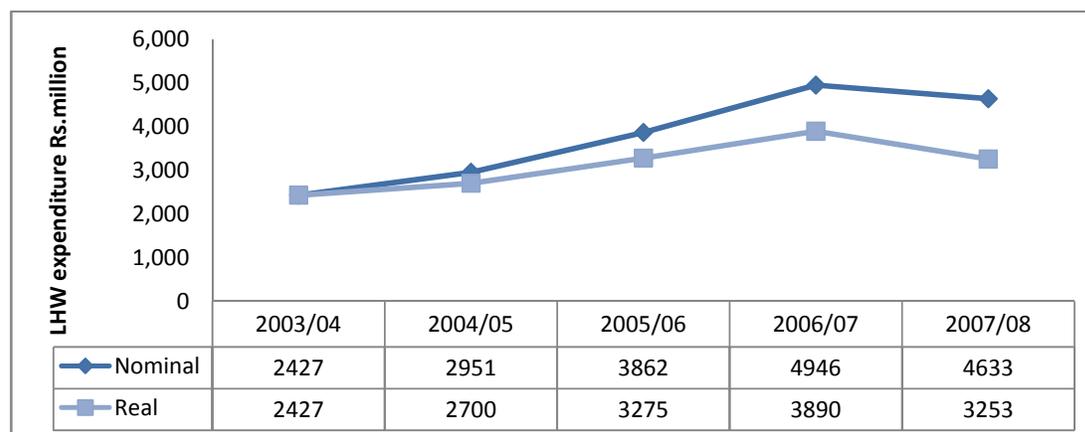
Source: PC-1 and Expenditure Statements from the FPIU.

Table 3.3 compares nominal expenditure. It is more instructive to look at inter-year expenditure in real terms, since a rupee spent in 2008 will not buy the same amount of goods and services as a rupee spent in 2003.

<sup>40</sup> In 2006/07, the PC-1 bid was for Rs. 4,403 million. However, the revised allocation was for Rs. 4,962 million. The arrears for the 2005/06 increase in LHWs salaries were paid in the FY 2006/07.

Figure 3.3 shows total Programme expenditure in nominal and real terms (2003/04 prices).<sup>41</sup> Real expenditure increased until FY 2006/07, when it fell by just over 16 percent from 2006/07, back to the level of expenditure of FY 2005/06.

**Figure 3.3 LHWP government expenditure (nominal) versus real (2003/04 prices)**



Source: Statements of Expenditure from FPIU; and author's calculation.

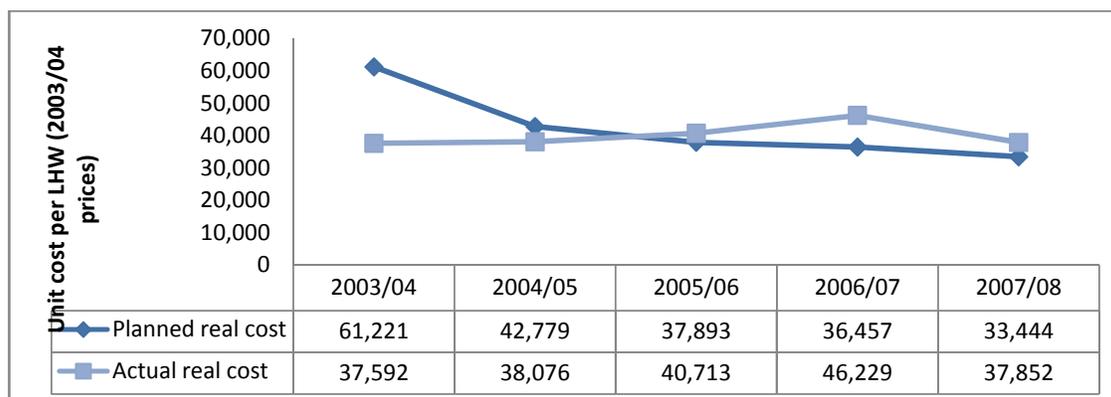
The real cost per LHW was nearly the same in 2007/08 as it had been in 2003/04 (Figure 3.4). However, there was a large real increase in 2006/07.<sup>42</sup> This was the result of the payment of LHW salary arrears incurred due to an increase in LHW stipends and the provision of a bonus (given in 2005/06 but not paid until the FY 2006/07) (see Chapter 5).

The average over the five years of the planned real cost was to have been Rs. 42,359 per LHW per year. However, the average actual real cost was Rs. 40,092.35 per LHW.

<sup>41</sup> The deflator used in Figures 3.3 and 3.4 is the CPI index. Another option would be to use the GDP deflator, which is a broader measure of the change in relative prices. This would not change the general message of Figures 4.3 and 4.4.

<sup>42</sup> According to the FPIU and PC-1 document, the only foreign exchange component is staff paid for and purchases made (contraceptives being the most significant) by foreign donors. This represents about 20 percent of total Programme expenditure in the five years under review (Chapter 4). All other purchases, including drugs and vehicles, appear to be made in rupees. To the extent that foreign exchange enters Programme costs indirectly, through foreign exchange purchases made by Pakistani suppliers to the Programme, these will be accounted for by rupee price inflation.

**Figure 3.4 Comparison of planned versus actual unit cost per LHW as funded by the GoP through the PC-1 (in 2003/04 prices)**



Source: PC-1; Statements of Expenditure from FPIU; and author's calculation

### 3.3 Planned versus actual unit cost, by activity

To find out which of the Programme activities have been underspent, Table 3.3 compares the planned unit cost by activity with the real unit cost by activity as defined in the MTBF, averaged over the five years of the current study period in 2003/04 prices. Actual expenditure on salaries, transportation of medicines, capacity-building, and procurement of other assets was higher than planned. In all other categories, expenditure was less.

**Table 3.4 Real planned and real actual cost per LHW, by MTBF activity in (Rs.)**

<b>MTBF Activity</b>	<b>Planned average cost per LHW (2003/04 prices)</b>	<b>Actual average cost per LHW (2003/04 prices)</b>	<b>Difference</b>
Management and monitoring	1,906	985	-921
Direct supervision	4,530	3,809	-721
LHW salaries	18,702	22,872	4,170
Transportation of medicines and other items	78	220	142
Rent of office building and warehouse	102	87	-15
Capacity-building (skill development of LHWs and trainers)	1,421	1,514	93
Purchases of drugs and contraceptives	10,102	7,325	-2,777
Procurement of vehicles	2,585	2,139	-446
Procurement of other assets	71	117	46
Evaluations HMIS/computer equipment	50	33	-17
Media campaign/Health Education campaign	885	711	-175
Repairs and maintenance of physical assets other than vehicles	45	25	-21
Research and pilot studies	48	0	-48
Collaboration with NGOs	61	0	-61
Entertainment charges	10	6	-4
Contingencies/operating expenses	815	430	-385
<b>Total</b>	<b>41,411</b>	<b>40,272</b>	<b>-1,140</b>

Source: PC-1 and Statements of Expenditure; FPIU; and author's calculation.

If we look at the share of expenditure and compare the planned with the actual, we see that salaries/stipends claimed a share nearly 12 percent more than was planned. Drugs and contraceptives, which were meant to be nearly one quarter of the budget, fell to 18 percent. Management and monitoring also had a reduced share of expenditure, together with direct supervision.

**Table 3.5 Real planned and real actual cost per LHW**

<b>MTBF activity</b>	<b>Planned average cost per LHW (2003/04 prices)</b>	<b>Intended share per activity (%)</b>	<b>Actual average cost per LHW (2003/04 prices)</b>	<b>Actual share per activity (%)</b>	<b>Difference (%)</b>
Management and monitoring	1,906	4.60	985	2.45	-2.16
Direct supervision	4,530	10.94	3,809	9.46	-1.48
LHW salaries	18,702	45.16	22,872	56.79	11.63
Transportation of medicines and other items	78	0.19	220	0.55	0.36
Rent of office building and warehouse	102	0.25	87	0.22	-0.03
Capacity-building (skill development of LHWs and trainers)	1,421	3.43	1,514	3.76	0.33
Purchases of drugs and contraceptives	10,102	24.40	7,325	18.19	-6.21
Procurement of vehicles	2,585	6.24	2,139	5.31	-0.93
Procurement of other assets	71	0.17	117	0.29	0.12
Evaluations HMIS/computer equipment	50	0.12	33	0.08	-0.04
Media campaign/Health Education campaign	885	2.14	711	1.76	-0.37
Repairs and maintenance of physical assets other than vehicles	45	1	25	0.06	-0.05
Research and pilot studies	48	0.12	0	0.00	-0.12
Collaboration with NGOs	61	0.15	0	0.00	-0.15
Entertainment charges	10	0.02	6	0.01	-0.01
Contingencies/operating expenses	815	1.97	430	1.07	-0.90
<b>Total</b>	<b>41,411</b>	<b>-</b>	<b>40,272</b>	<b>-</b>	<b>-</b>

Source: PC-1 and Statements of Expenditure; FPIU; and author's calculation.

The comparison of planned and actual real expenditure per LHW does not enable judgements about the efficiency of expenditures. If, for example, the PC-1 significantly over-estimated the appropriate level of expenditure per LHW, then actual expenditures could represent a more appropriate and efficient level. This will be investigated further in Chapter Five.

### **3.4 Key points**

- By June 2008, the records show 89,125 LHWs working and 949 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 in training;
- The annual turnover of LHWs (including terminations) is estimated to be about 4 percent;
- Recruitment of LHWs is an important cost driver of the Programme, and yet the Management Information Systems do not provide direct figures on annual recruitment;
- Average real unit cost (per LHW per year) remained fairly steady over the five-year period. The exception was 2006/07, when salary arrears were paid;
- Average actual real unit cost (per LHW per year) was 95 percent of the planned unit cost in the PC-1;
- The amount spent on LHW stipends in real terms (2003/04 prices) was significantly higher than that planned in the PC-1. The share of the budget allocated to LHW stipends was 12 percent greater than had been planned;
- Costs were saved with the reduction in the amount spent on drugs and contraceptives, where the share spent with regard to the total budget was 6 percent less than that planned in the PC-1; and
- Whether the LHWP is underfunded or whether the current level of expenditure represents a more efficient allocation than the amount envisaged in the PC-1 will be explored in Chapter 5.



## **4 Analysis of Actual Expenditure**

### **4.1 LHWP funding and expenditure**

The LHWP receives the majority of its funding from the Government of Pakistan.<sup>43</sup> The district and provincial governments only contribute the costs of salaries for a few staff positions (Provincial/District Coordinators, Assistant District Coordinators), and office and store accommodation at district level.

Funds are received from the Ministry of Finance through the Ministry of Health. The Programme budget (New Item Statement) is prepared and finalised for nine major spending units. These are: the FPIU; the PPIUs for Punjab, Sindh, NWFP, and Balochistan; and the RPIUs for FANA, FATA, AJK, and ICT.

Funds for the FPIU and for ICT are placed in separate lapsable Personal Ledger Accounts/Special Drawing Accounts (PLAs/SDAs) with the Federal Treasury Office in Islamabad. The authority to release the funds is with the Accountant General Pakistan Revenues (AGPR), Islamabad.

The major portion of the funds for the PPIUs and the RPIUs (with the exception of AJK) are placed in lapsable PLAs/SDAs at the respective District Treasury Offices (DTOs), with funds being released through the AGPR sub-offices.

AJK funds are released to the Accountant General of AJK by the AGPR (Islamabad office), and these funds are released, on the basis of a funds distribution order from the RPIU-AJK, to all the districts of AJK and the RPIU-AJK in Muzafarabad.

The salaries and training components of funds released in the PLAs of the four PPIUs and the three RPIUs (FANA, FATA, and ICT) are then transferred to the Salary Disbursement Account (SDA), which is maintained with Pakistani designated and approved commercial banks. The small portion relating to district funds is released to the District Accounts Offices (DAOs) to disburse to the DPIUs, headed by the EDO-H/DHOs, by means of their respective AGPR sub-offices.

Expenditure is incurred by the Federal Programme Implementation Unit (FPIU) and by the PPIU and the DPIU within the Provincial Department of Health and the District Health Department, respectively. The expenditure remains part of the Federal PSDP irrespective of the level of government at which the expense is incurred.

The Federal Secretary of Health is the Principal Accounting Officer (PAO), and the budget is executed at the Federal Programme Implementation Unit (FPIU), Provincial/Regional Programme Implementation Unit (P/RPIU) and District Programme Implementation Unit (DPIU).

The Programme prepares annual budgets in discussion with the Ministries of Health and Planning. The Ministry of Planning and Development recommends an annual budget for the Programme to the Ministry of Finance, who may reduce the recommended amount. Table 4.1 shows GoP annual budget allocations, releases and expenditure since the start of the Programme.<sup>44</sup>

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<sup>43</sup> Donor contributions, directly and through the SAP, are also discussed in this chapter.

<sup>44</sup> Table 4.1 shows only GoP expenditure.

**Table 4.1 Comparison of budget and actual expenditure (Rs. millions)**

	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

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

Source: Finance Section of the FPIU.

Delays in the release of funds can cause systems inefficiencies. The previous Finance and Economic study found that, on average, 32 percent of original allocations were not released by the Ministry of Finance. Over the five-year period of this study, releases against the budget allocation (PSDP provision) were, on average, 96 percent. The release against the request by the Programme based on the PC-1 was, on average, over the same period, 88 percent. This improvement should have provided the Programme with a greater confidence in budgeting for expansion and improvements in service delivery, only marred by not knowing until the end of year what portion of its full budget allocation would be received.

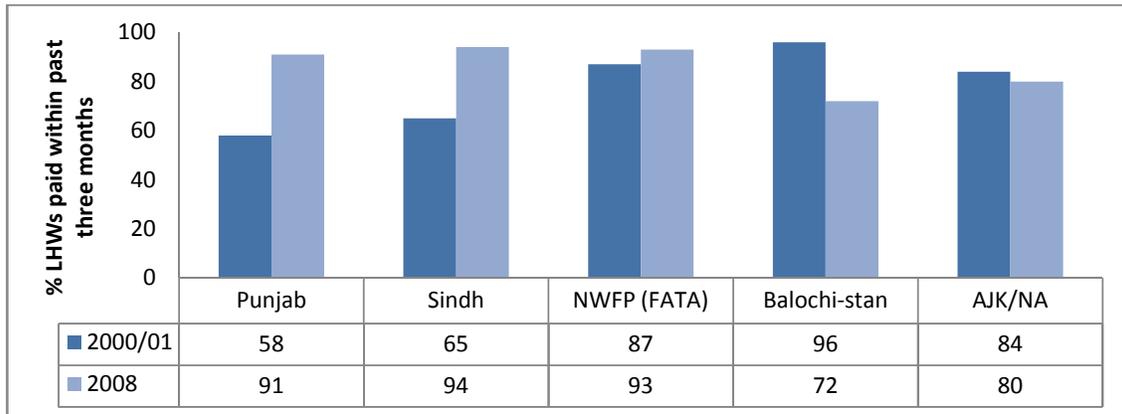
In 2006/07, the Ministry of Finance had delegated financial powers to the Ministry of Health to release funds for the first quarter, if the cash plan had the approval of the Planning and Development Division and the Ministry of Health. Further quarterly releases were to be made on the basis of utilised funds. Unspent balances would lapse on 30 June, the end of financial year.

However, in the financial year 2008/09, due to a shortage of funds, the Ministry of Finance withdrew this power, and allowed only 15 percent of the budget allocation to be released in the first quarter and second quarter.<sup>45</sup> In the last quarter of FY 2007/08 and the first quarter of FY 2008/09, the Ministry of Finance again delayed the release of funds, which resulted in delayed disbursement from April 2008 onwards. This resulted in the delay of salary payments, which are typically released by the PPIUs on a monthly basis. However, on average, fewer salary payments were delayed than during the time of the previous evaluation. Note how this is irregular across regions (Figure 4.1).

The Personal Ledger Accounts and the Salary Disbursement Account have been closed by the Ministry of Finance and a new system of Assignment Accounts was introduced in October 2008. The Assignment account for salaries now rests with designated branches of the National Bank of Pakistan, which might cause salary delays due to a large number of LHWs having their bank accounts with other banks.

<sup>45</sup> The Quantitative Survey was conducted in the first quarter of the FY2008/09. The main impact is shown in the results on delays in salary payments and allowances.

**Figure 4.1 Comparison of LHWs paid within the previous three months, 2000/01 and 2008**



Source: Quantitative Survey Reports, 3rd Evaluation, March 2002 and 4th Evaluation, August 2009.

The Programme has a good record with regard to spending the funds released, with one exception. In FY 2004/05, the LHWP was only able to spend 86 percent of the allocated budget (Table 4.1). This was because the approval from the Chairman of ECNEC and the Planning Commission for the import and procurement of contraceptives did not reach the FPIU by the end of June 2005. An additional issue was the slow recruitment of LHWs by the Programme. The underspent funds were lapsed to the federal government.

It is useful to compare the LHWP's allocation and release record with that of other federal health programmes in order to assess relative government priorities. Table 4.2 shows the 2003/04 and the 2005/06 budget allocation and release data for four programmes: LHWP, AIDS Control, Expanded Programme of Immunisation (EPI) and Malaria Control (MCP). All the Programmes, with the exception of AIDS control, have high releases against allocation.

**Table 4.2 Comparison of budget allocation and releases for various MoH programmes (Rs. millions)**

Federal government	2003/04			2005/06			2006/07			2007/08		
	Full-year allocation	Final releases	Releases/ allocation (%)	Full-year allocation	Final releases	Releases/ allocation (%)	Full-year allocation	Final releases	Releases/ allocation (%)	Full-year allocation	Final releases	Releases/ allocation (%)
LHWP	2,223	2,390	108	3,880	3,807	98	4,962	4,962	100	4,892	4,635	95
HIV/AIDS control	174	30	17	230	70	30	229	250	109	291	195	67
EPI	399	392	98	985	983	100	1,200	670	56	2,057	2,052	100
Malaria control	27	27	100	32	32	100	50	48	96	5	5	101
TB Dots							127	105	83	111	111	100

Sources: Except for LHWP, the sources are the Appropriation Account (Civil) for FYs 2003/04, 2005/06, and 2006/07, and the Draft Appropriation Account (Civil) for FY 2007–08 prepared by AGPR, Islamabad; and the source for the LHWP is the Programme Budget and Releases record endorsed by Ministry of Finance.

## 4.2 Funding by source

The LHWP received contributions from a number of donors: specifically, the ADB, DFID, UNFPA, UNICEF, JICA, CIDA, WHO, Save the Children, and USAID. However, with some exceptions, it is very difficult to collect information on development partner expenditure. The Programme does not keep accounts of contributions, with the exception in some instances of UNFPA and UNICEF. A great deal of donor expenditure is through the donors' own mechanisms, exclusive of the Programme's accounting system and staff. In addition, it was not possible to calculate donor funding provided directly to provincial governments and used for the Programme. Therefore, only a rough estimate on donor contribution can be made here.

The Asian Development Bank (ADB) funded two projects that made contributions to the Programme for which the budgets were included in chapter 2 of the PC-1: the WHP provided Rs. 325 million in support of salaries and medicines up until December 2005; and the RHP provided Rs. 602 million for the FYs 2003–2008, which was mainly earmarked for LHW stipends, and supervision and training expenses. CIDA funded this external evaluation.

Budgetary support through DFID (through the National Health Facility) and technical assistance through TAMA (a procurement agency for health technical assistance) is also not included here.

Table 4.3 shows the contribution of donor funding to the LHWP that it was possible to collect. Expenditure by the GoP and donors is in Pakistani Rupees. It is clear that the GoP is the most significant contributor to the LHWP. DFID's estimate of the benefit of this to the Programme through TAMA and budgetary support would have taken the share of donor contribution from around 4 percent to 23 percent.

Contribution by the development partners in the form of budgetary support rather than by direct project contributions reduces the risk of skewing Programme priorities to those of development partners. This is the reasoning behind the budgetary support to the top priority health programmes of the GoP through the National Health Facility.

**Table 4.3 LHWP expenditure by source of funding (Rs. million)**

Source	2003/04	2004/05	2005/06	2006/07	2007/08	Total
UNFPA	32.00	27.00	32.00	18.00	14.00	124.00
ADB	202.00	191.00	89.00	74.00	6.00	562.00
UNICEF	6.00	6.00	9.00	25.00	17.00	64.00
WHO	–	51.00	–	52.00	–	103.00
CIDA	–	–	–	–	23.00	23.00
Donor expenditure	240.00	275.00	131.00	169.00	61.00	876.00
GoP expenditure	2,427.00	2,951.00	3,862.00	4,946.00	4,633.00	18,819.00
GoP and donor total	2,667.00	3,226.00	3,993.00	5,115.00	4,693.00	19,695.00
Percentage GoP of total	91.00	91.47	96.73	96.69	98.70	95.55

Source: Finance Office, FPIU, PPIUs, LHWP, UNICEF, UNFPA, WHO, CIDA, DFID, ADB.

Note: (1) The exchange rate taken for the calculation is Rs. 58/US\$ for all years.

(2) The CIDA funding of \$1.2 M is equally distributed over the three years from 2007/08 to 2009/10.

(3) ADB includes the expenditure on Women Health Project and Reproductive Health Project

## Expenditure by Programme level

Provinces have limited procurement authority (i.e. limited to the level of furniture, stationery, repair and maintenance of vehicles, logistics arrangements, and the like); the districts are even more limited (restricted to stationery, phone services, postage, courier service, gasoline and repair and maintenance of vehicles, and miscellaneous). While the project allowances for Provincial/Regional and District Coordinators seconded to the Programme had been budgeted in the PC-1, these allowances could not be paid due to audit objections.

Over the five-year study period, on average, 26 percent of Programme funds were spent by the FPIU (Table 4.4).<sup>46</sup> Procurement of vehicles, medicines, contraceptives, non-drugs items, printed material for trainings, health education campaigns is undertaken at the level of the FPIU/Ministry of Health, using national competitive bidding procedures as laid down by the Public Procurement Regularity Authority of Government of Pakistan.

The remaining 74 percent of funds are transferred to the PPIUs, who allocate funds to DPIUs. Only 3.4 percent of the provincial allocation is transferred to the DPIUs at the district level. The exception is AJK, where the financial system is decentralised and salaries/stipends and operational expenditure is disbursed at the district level (Table 4.4).<sup>47</sup>

**Table 4.4 Expenditure by levels of government, 2003/04–2007/08 (Rs. million)**

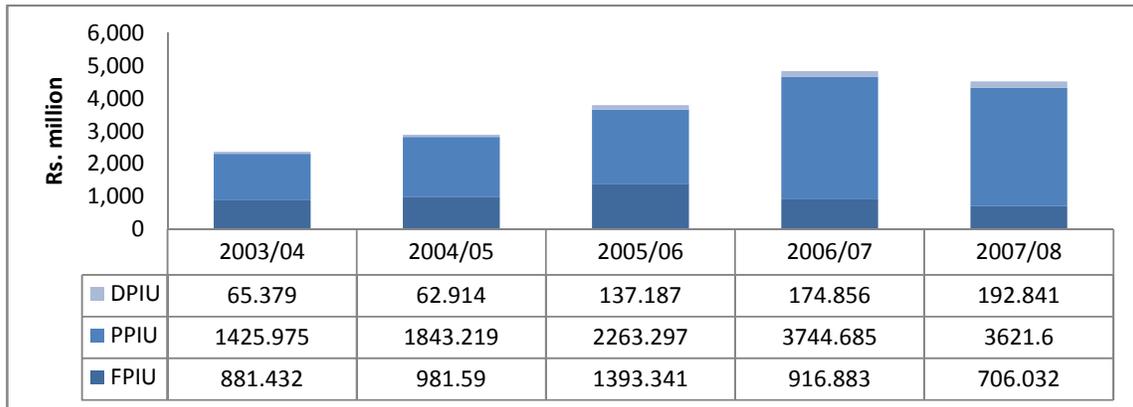
	2003/04	2004/05	2005/06	2006/07	2007/08	Total	% of total
Federal	881.43	981.59	1,393.34	916.88	706.03	4,879.28	25.93
Provinces/regions	1,425.98	1,843.22	2,263.30	3,744.69	3,621.60	12,898.78	68.54
Districts (all P/RPIUs except AJK)	65.38	62.91	137.19	174.86	192.84	633.18	3.36
AJK districts	54.23	63.39	68.36	109.31	112.16	407.45	2.17
Total of districts	119.61	126.31	205.54	284.17	305.00	1,040.62	5.53
<b>Total expenditure</b>	<b>2,427.02</b>	<b>2,951.12</b>	<b>3,862.18</b>	<b>4,945.73</b>	<b>4,632.63</b>	<b>18,818.68</b>	<b>100.00</b>

Source: FPIU, LHWP

<sup>46</sup>This figure does not include donor contributions; it is GoP expenditure only.

<sup>47</sup> The federal government transfers funds from the accounting circle AGPR Islamabad (through the Drawing and Disbursing AJK Council, Islamabad) to the Accountant General (AG), AJK, Muzafarabad. These funds are then distributed to districts by the AG, AJK on the advice of the Programme Coordinator LHWP, RPIU AJK, Muzafarabad. The funds are transferred into the Personal Ledger Accounts (PLAs) of the districts: the salary funds are transferred to the designated branches of the National Bank of Pakistan for credit to the LHWs' accounts

**Figure 4.2 LHWP GoP expenditure, by level**



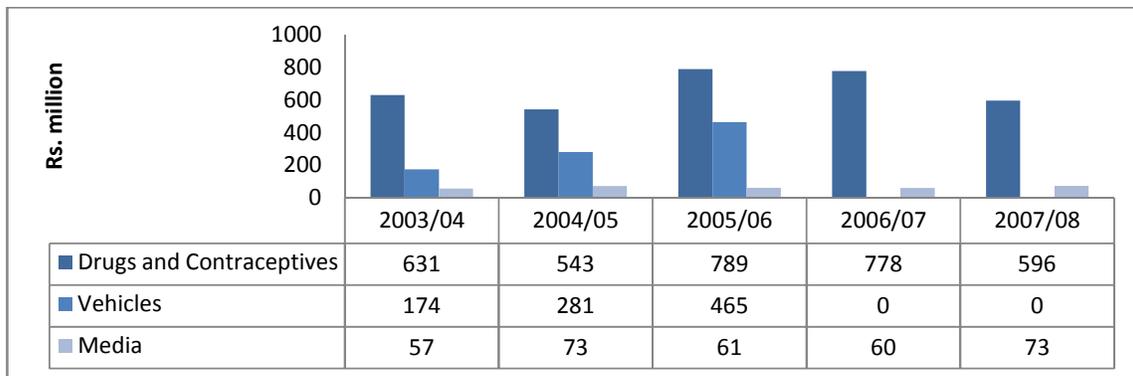
Source: Statements of Expenditure, FPIU.

The proportion of total expenditure incurred at the federal level has decreased in recent years. Between 2003/04 and 2005/06, it was between 33 percent and 36 percent of total expenditure. In 2006/07–2007/08, it fell to between 15 percent and 19 percent (Figure 4.2).

### 4.3 Expenditure by input/activity<sup>48</sup>

While media spending has remained fairly constant, the purchase of vehicles and drugs and contraceptives (supplies) has reduced. The federal expenditure in drugs and contraceptives fluctuated between about Rs. 600 million and Rs. 800 million per year, and federal expenditure on media fluctuated around Rs. 65 million per year. Federal expenditure in the purchase of vehicles increased by more than 60 percent per year from 2003/04 to 2005/06, and no monies have been spent thereafter.

**Figure 4.3 LHWP Federal expenditure, by activity/input (Rs. million)**



Source: Statement of Expenditure, LHWP.

<sup>48</sup> See Annex D.

## **Vehicles**

The budget for procurement of vehicles was Rs. 1,216.559 million for the five years under review. It was underspent by Rs. 296.261 million. The survey results show that not all LHSs had access to a vehicle, as had been specified in the PC-1.

## **Drugs and contraceptives**

The budget for drugs and contraceptives in the PC-1 was Rs. 5,461.421 million. By mid-2008, this budget was underspent by Rs. 2,663.973 million. If recruitment had been significantly lower than planned and/or drugs and contraceptives were purchased at a much lower cost than originally budgeted for, then there might not have been a problem of undersupply. However, this was not the case. The PC-1 specifies the monthly requirement of the LHW for drugs and medicines. No item was procured to the level forecast per LHW in the PC-1 (Table 4.5).

**Table 4.5 Difference between PC-1 monthly requirement for medicine and actual procured per LHW**

Item	Accounting unit	Quantity procured accounting units 2003–08	Potential average accounting unit supplied per month per LHW (1)	Monthly need as specified in the PC-1 by accounting unit	Difference between monthly requirement in PC-1 and actual procured
Paracetamol tablets	Pack of 200 tablets, in strip/blister	64,910	0.809	1	-0.191
Paracetamol syrup	Bottle, 60ml, with carton	627,270	7.822	10	-2.178
Chloroquine tablets	Pack of 100 tabs, in strip/blister	46,626	0.581	1	-0.419
Chloroquine syrup	Bottle, 60ml, with carton	317,767	3.963	5	-1.037
Ferrous fumarate + folic acid tablets	Pack of 1,000 tablets, in strip/blister	57,026	0.711	1	-0.289
Antiseptic lotion	Bottle, 50ml, with carton	74,815	0.933	1	-0.067
Cotrimoxazole syrup	Bottle, 50ml, with carton	317,302	3.957	5	-1.043
Eye ointment	Tube, 4 gm, with carton	556,194	6.936	10	-3.064
Vitamin B complex syrup	Bottle, 120 ml, with carton	464,586	5.793	7	-1.207
Benzyle benzoate lotion	Bottle, 60ml, with carton	118,524	1.478	2	-0.522
Mebendazole tablets	Pack of 100 tablets, in strip/blister	39,901	0.498	1.5	-1.002
Cotton bandage	Pack of 12, with packing	68,855	0.859	1	-0.141
Piperazine syrup	Bottle, 30ml, with carton	287,091	3.580	5	-1.420
ORS	Pack of 20 sachets	61,778	0.770	1	-0.230
Oral contraceptive pills	Cycle	484,378	6.040	10	-3.960

Note: A denominator of 80,191 was used. This is the average number of LHWs recorded on the PSP database between July 2003 and June 2008.

Source: Logistics Section, LHWP.

## Salaries/stipends

Of the 69 percent of Programme expenditure incurred at the provincial level, 84 percent is absorbed by LHW stipends.<sup>49</sup> There is only a small portion of expenditure allocated for the operational costs of running the PPIUs and DPIUs.<sup>50</sup> This includes POL allowances for LHSs and District Coordinators, transportation of supplies, workshops costs, repair and maintenance of vehicles, stationery and so on (see Table D.4 for Provincial Statements of Expenditure 2003–08).<sup>51</sup>

However, even once employee salaries/stipends and allowances are removed from the provincial expenditure, the proportion of expenses by the DPIUs are only 20 percent of the total (if AJK expenditure is included in the provincial total).

Essentially, the district is provided with a service in the form of an LHW, who comes with direct supervision (LHS, vehicle, driver) and supplies, is fully funded and who requires management and training inputs to perform well.

To complete the picture of LHWP expenditure by activity, Figure 4.4 shows a snapshot of total expenditure from 2003/04 to 2007/08. Taken together, salaries/stipends (the largest component of provincial expenditure) and drugs and contraceptives (the largest component of federal expenditure) account for over three quarters of the total cost.

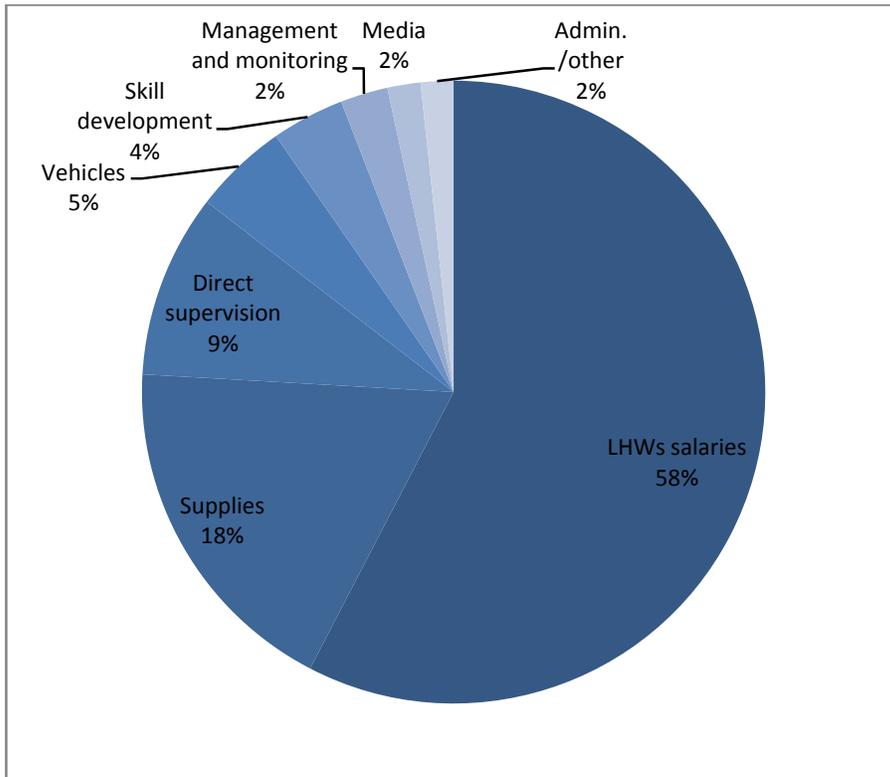
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<sup>49</sup> Salaries are also paid for Lady Health Supervisors, drivers, Accounts Supervisors, Logistics Officers and Field Programme Officers who are on contract. Allowances are paid to trainers at all levels of the organisation.

<sup>50</sup> The districts submit monthly statements of expenditure (SoE) to the PPIU, who consolidate them and pass them up to the FPIU. The SoEs show expenditure according to four categories: establishment, commodities and services, durable goods, and repair and maintenance. These were the SoE categories up to 1999. Since then, the FPIU has prepared detailed guidelines for the maintenance of accounts at DPIUs, which recommended that SOEs be split into 11 categories. Some provinces are now following these guidelines. This classification makes it difficult to separate expenditure into the LHWP activities (such as supervision and training). Moreover, when submitted to FPIU, SoEs might or might not contain all expenditures for the month in question, depending on whether DPIUs have submitted reports to the PPIU.

<sup>51</sup> The payment of a deputation allowance of 20 percent of basic salary for staff deputed to the implementation units was stopped in FY 2001/02, though it remained budgeted for in the PC-1.

**Figure 4.4 Share of total LHWP expenditure by activity/input, 2003/04–2007/08**



Source: Expenditure Statements, FPIU.

### Expenditure by province

Tables 4.6 and 4.7 show Programme expenditure by province or federally administered area,<sup>52</sup> and include the average share of Programme expenditure per region for the period 2003/04–2007/08, and also for the period 1993/94–2000/01.

<sup>52</sup> Only funds transferred to the PPIUs by the FPIU are included in the analysis.

**Table 4.6 Expenditure of the LHWP, by province/federally administered area, 2003/04–2007/08 (Rs. million)**

	2003/04	2004/05	2005/06	2006/07	2007/08	Total
Punjab	667.056	875.847	1,183.009	2,008.701	1,912.425	6,647.038
Sindh	424.569	482.231	542.639	898.069	898.735	3,246.243
NWFP	208.892	307.607	365.693	583.17	577.315	2,042.677
Balochistan	118.908	154.428	190.801	263.701	258.975	986.813
AJK	59.504	68.546	76.282	117.233	122.777	444.342
FANA	32.781	39.379	51.116	69.729	68.849	261.854
FATA	24.694	32.224	46.814	72.727	70.519	246.978
ICT	9.181	9.265	12.487	15.521	17.001	63.455

Source: Finance Office, FPIU, LHWP for 2003/04–2007/08; and the previous Economic and Finance Analysis (March 2002).

**Table 4.7 Percentage of expenditure of the LHWP by province/federally administered area, 2003/04–2007/08**

	2003/04	2004/05	2005/06	2006/07	2007/08	Average	Average 1993/94– 2000/01
Punjab	43	44	48	50	49	47	45
Sindh	27	24	22	22	23	24	25
NWFP	14	16	15	14	15	15	13
Balochistan	8	8	8	7	7	7	7
AJK	4	3	3	3	3	3	5
FANA	2	2	2	2	2	2	3
FATA	2	2	2	2	2	2	1
ICT	1	0	1	0	0	0	1
	100	100	100	100	100	100	100

Source: Finance Office, FPIU, LHWP for 2003/04–2007/08; and the previous Economic and Finance Analysis (March 2002).

For the allocation of LHWs to the provinces/areas, the Programme advocates applying a formula based mainly on the rural population. The allocated posts of LHWs compared with the share of population bears this out (Table 4.8), as does the share of the average number of working LHWs for the five-year study period. As LHW stipends comprise a large amount of expenditure, one would expect the share of expenditure to be closely related to the number of working LHWs. Variations are slight and can be caused by a number of factors, but in particular are related to the point in the financial year when LHWs were recruited.

**Table 4.8 Allocation of LHWs and resources by province/ federally administered areas**

	Population projection 2003	Share (%)	Allocated posts	Share (%)	Share of working LHWs on average 2003–08 (%)	Share of expenditure on average 2003–08 (%)
Punjab	82.11	55.38	52,381.00	54.56	52.60	49.00
Sindh	34.23	23.08	21,225.00	22.11	23.80	25.00
NWFP	20.02	13.50	14,469.00	15.07	15.30	15.00
Balochistan	7.43	5.01	6,000.00	6.25	6.50	8.00
FATA	3.50	2.36	1,600.00	1.67	1.50	2.00
ICT	0.99	0.67	325.00	0.34	0.36	1.00
<b>Total</b>	<b>148.29</b>	<b>100.00</b>	<b>96,000.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Note: As population figures are not available for AJK and FANA, the average share of expenditure from Table 4.4 has been reassigned.

Source: PSP database and Statements of Expenditure from the FPIU; population estimates are from the National Institute of Population Studies website.

#### 4.4 Key points

- The LHWP has a good record with regard to spending funds released from the GoP budget;
- Generally, the approved budget allocations were released by the Ministry of Finance from 2003/04–2007/08, compared with the previous period, when the Programme could only expect around 70 percent of their allocations to be released;
- Donor contributions are difficult to ascertain. All interpretations affected by donor contributions are based on the best approximations available;
- The GoP is by far the most significant contributor to the LHWP. However, donor contributions account for over 20 percent of total Programme expenditure between 2003/04–2007/08. The Programme needs to be accountable for donor funds;
- DFID-UK, is the largest external donor to the Programme by means of the support it provides through its procurement agency (TAMA) and budgetary support through the National Health Facility;
- LHWP is funded by the federal level. However, expenditure is split between the federal level (about 26 percent), the provincial level (about 69 percent), and the districts (3.3 percent);
- The exception is AJK, which spends 2.8 percent of total expenditure through a decentralised programme at the district level;
- Expenditure on drugs has been irregular, falling in 2004/05, subsequently increasing until 2006/07, and then falling steeply. Only 64 percent of the budget for drugs and contraceptives was spent;
- LHW stipends are by far the largest provincial expenditure item for the Programme, accounting for around 84 percent;

- Taken together, salaries/stipends and drugs and contraceptives accounted for just over 70 percent of total Programme expenditure (federal plus provincial) between 2003/04 and 2007/08;
- The relative share of resources to each province broadly matches the distribution of LHWs.

## **5 The Funding of the LHWP**

### **5.1 Funding levels**

An analysis of actual Programme expenditure does not tell us whether that level of expenditure is appropriate for providing the services that the Programme was designed to deliver. We have seen that while total funding for the Programme has not matched the PC-1, the average nominal cost of each LHW from 2003–08 was very much as planned, with the exception of 2003/04. However, the real unit cost per LHW averaged over the five-year period fell by 14 percent.

The level of funding has a direct impact on the ability of the Programme to fill its allocated posts and to implement plans for expansion. The impact of funding levels on service coverage is direct and observable. Each of the estimated 89,125 LHWs working at the end of June 2008 registered, on average, 929 clients. This gives a potential coverage of nearly 83 million people. While this is still short of the targeted 100,000 LHWs with a coverage of 100 million clients, it is a significant achievement.

LHWs are being undersupplied with drugs and contraceptives, and the supervisors are undersupplied with vehicles.

It is not possible to define the absolute level of organisational support that is required to raise the performance of the LHWs that perform poorly (who provide only 26 percent of their clients with basic preventive and promotive services) to the level of high-performing LHWs (who provide 78 percent of their clients with the same services). However, we do know that these factors are important and we take this into account in our analysis and in our recommendations for funding in Chapter 6.

In addition to raising Programme performance through Programme expansion and increased organisational inputs per LHW, two other factors related to increasing performance will be improved management of LHWs and the replacing poor-performing LHWs with motivated LHWs.

The aim of this chapter is to assess whether the mix of inputs being purchased provides an appropriate level of support to enable the LHW to deliver primary health care services to her community to the standards set by the Programme, and whether these inputs are being purchased at a reasonable price.

### **5.2 Analysis of inputs**

An estimate of actual expenditure per LHW has been calculated for 2007/08 and compared with the planned cost per LHW from the PC-1 (Table 5.1). This period immediately precedes the evaluation team's measuring of performance on service delivery, and enables us to relate information on expenditure to delivery of services.

It is important to compare expenditure in real terms; prices have increased by an average of 9.25 percent per year since 2003/04, when the PC-1 was written. Hence, both the planned costs and the average spend per LHW are shown in 2003/04 prices.

**Table 5.1 Real planned and actual costs per LHW (2003/04 prices)**

	Planned cost	Intended share (A) (%)	Actual cost	Actual share (B) (%)	Difference (B) - (A) (%)
Management and monitoring	1,906.00	4.60	985.00	2.45	-2.16
Direct supervision	4,530.00	10.94	3,809.00	9.46	-1.48
LHW stipends	18,702.00	45.16	22,872.00	56.79	11.63
Transportation of medicines and other items	78.00	0.19	220.00	0.55	0.36
Rent of office building and warehouse	102.00	0.25	87.00	0.22	-0.03
Capacity-building	1,421.00	3.43	1,514.00	3.76	0.33
Purchases of drugs and contraceptives	10,102.00	24.40	7,325.00	18.19	-6.21
Procurement of vehicles	2,585.00	6.24	2,139.00	5.31	-0.93
Procurement of other assets	71.00	0.17	117.00	0.29	0.12
Evaluations HMIS/computer equipment	50.00	0.12	33.00	0.08	-0.04
Media campaign/Health Education campaign	885.00	2.14	711.00	1.76	-0.37
Repairs and maintenance of physical assets other than vehicles	45.00	0.11	25.00	0.06	-0.05
Research and pilot studies	48.00	0.12	0.00	0.00	-0.12
Collaboration with NGOs	61.00	0.15	0.00	0.00	-0.15
Entertainment charges	10.00	0.02	6.00	0.01	-0.01
Contingencies/operating expenses	815.00	1.97	430.00	1.07	-0.90
<b>Total</b>	<b>41,411.00</b>	<b>100.00</b>	<b>40,272.00</b>	<b>100.00</b>	<b>100.00</b>

Source: Table 3.4.

The focus of the analysis that follows is on those activities and inputs that consume the largest amount of resources and, potentially, have the largest impact on overall levels of efficiency: LHW stipends, drugs and contraceptives, and LHW training and supervision.

### 5.3 LHW stipends

The stipends paid to LHWs constitute the vast portion of all salaries and stipends paid by the Programme.

The issues with determining the adequacy of stipends is that, in the design of the Programme, the stipend was to be an acknowledgement of the contribution of the LHW. She was to be given a one-year contract to provide specified services in the community. She was not to be a public servant, as such.

The lack of private sector survey data makes valid comparisons between the LHWP and alternative private sector sources of employment difficult.<sup>53</sup> For the public sector, if such

<sup>53</sup> As noted in 'Pakistan: A Framework for Civil Service Reform', World Bank, December 1998.

comparisons were to be made, non-wage benefits would need to be considered. The LHW works in her own community and from her own house, and she is not subject to transfer, for which public sector workers (e.g. teachers) would expect some form of general wage compensation.

### **5.3.1 Recruitment and retention**

The current salary level appears sufficient to attract and retain the required number of LHWs. There is a high level of retention; the LHW turnover rate is low, at around 4 percent per annum.<sup>54</sup> However, this is also likely to be a reflection of limited formal sector work opportunities for women and the increasing reputation of the Programme as providing suitable employment conditions. The Programme reports that, in the latest round of recruitment, there were many suitable candidates for most advertised posts. There are exceptions in some communities where the education criteria cannot be met.

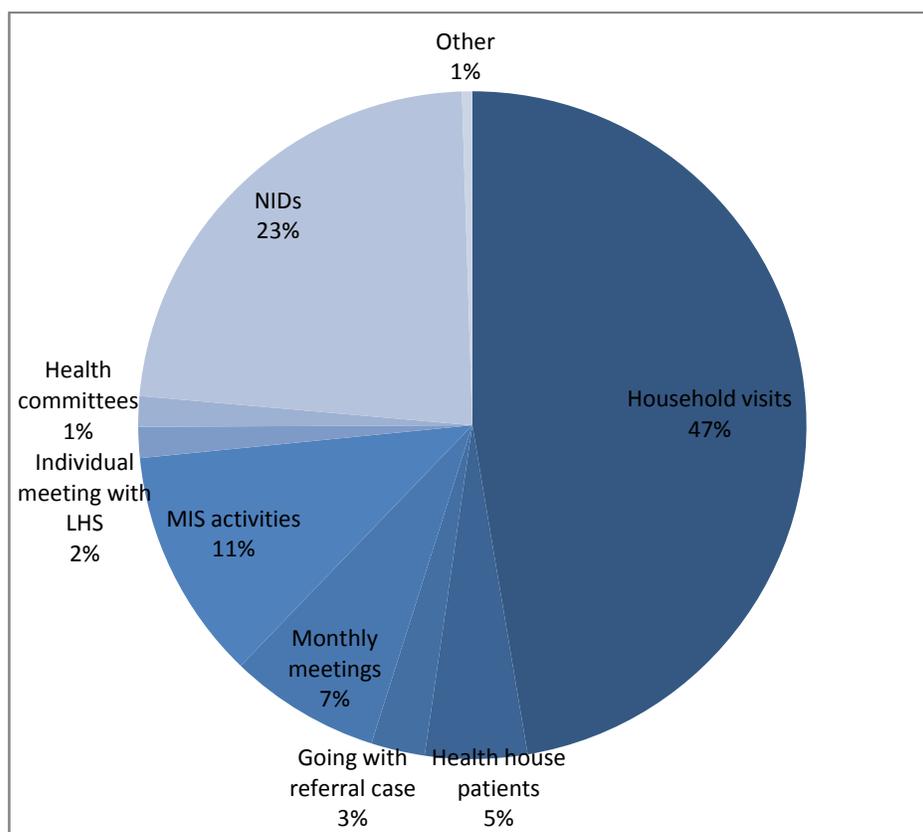
### **5.3.2 Professional parity**

A newly appointed primary school teacher is paid in accordance with Basic Pay Scale 9 (BPS 9). She receives Rs. 5,466 per month, inclusive of basic allowances. The Lady Health Visitor who works at the health facilities is also on the same pay scale. Both of these occupations require a higher level of education than the LHW and have longer training periods. In the previous evaluation, the LHW's stipend was equivalent to the bottom rung of BPS 6. In 2008, the BPS 6 (or equivalent) was Rs. 3,430 without allowances and, with allowances, Rs. 3,659. The LHW stipend in June 2008 was Rs. 3,090. On average, the LHW works 30 hours per week. However, seven hours (23 percent of her time) is spent working in connection with the National Immunisation Days (NIDs), for which she receives a payment (Figure 5.1).

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<sup>54</sup> The turnover rate is based on PSP database information (see Chapter 3).

**Figure 5.1 Allocation of work time by LHWs**



Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

### 5.3.3 Income supplementation

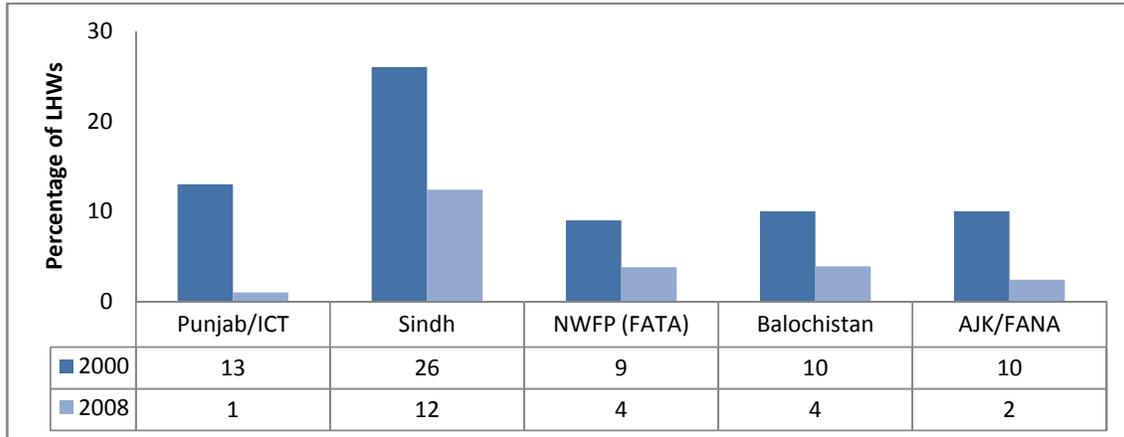
Programme policy states that LHWs should not hold another paid job.<sup>55</sup> A small percentage of LHWs do carry out other paid work, although this additional work does not create substantial income and fewer LHWs are in additional employment than was the case in 2000 (Figure 5.2).<sup>56</sup> Five percent of LHWs reported working for an NGO, where they had been paid, on average, a total of Rs. 458 in the previous three months. LHWs also reported that LHWs worked, on average, nine days in the previous three months on NIDS and had been paid, on average, Rs.143 per day. So that the payments process for additional duties, such as NIDs, is transparent and the Programme retains accountability for this work, there could be a case for payments to come via the payment system of the Programme.

It is also Programme policy to provide LHW services free of charge. Some LHWs charge for consultations with clients, which is not congruent with the National Health Policy of the LHWP being a public good.

<sup>55</sup> The Quantitative Surveys in 2000 and 2008 found no negative impact on the performance of LHWs if they did have another paid job.

<sup>56</sup> This does not include the large number of LHWs who received additional payment for working on National Immunisation Days. This work is considered a part of the role of the LHW and not an additional job.

**Figure 5.2 Proportion of LHWs with an additional paid job**



Note: FATA was not included in the survey that was conducted in the field in 2008 due to insecurity in the region. However, it was included in the 3rd Evaluation in 2000.

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

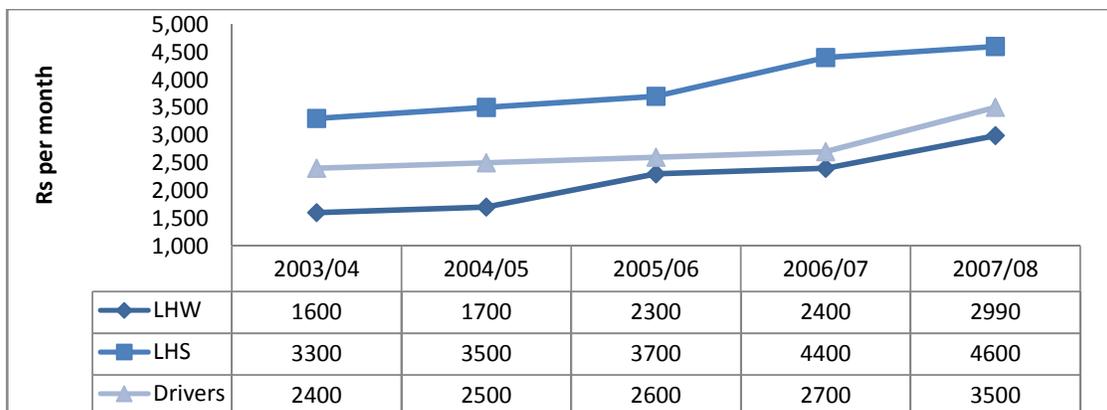
### 5.3.4 Salary increases

In May 2005, the Prime Minister announced an increase of Rs. 500 per month for the LHWs, to be effective from July 2005. This was to be provided together with the annual increase of Rs. 100 for LHWs. In April 2007, the President announced an increase of stipends to Rs. 2,500 for an LHW and an increase to Rs. 4,400 for an LHS, to be effective from July 2007. In July 2007, the LHWs also received the 15 percent increase that was being given to all public servants. From January 2008, a driver's salary increased from Rs. 2,800 to Rs. 4,200 per month.

### 5.3.5 Inflation

Figure 5.3 shows that, in nominal terms, salaries/stipends of drivers, LHSs and LHWs increased over the five years.

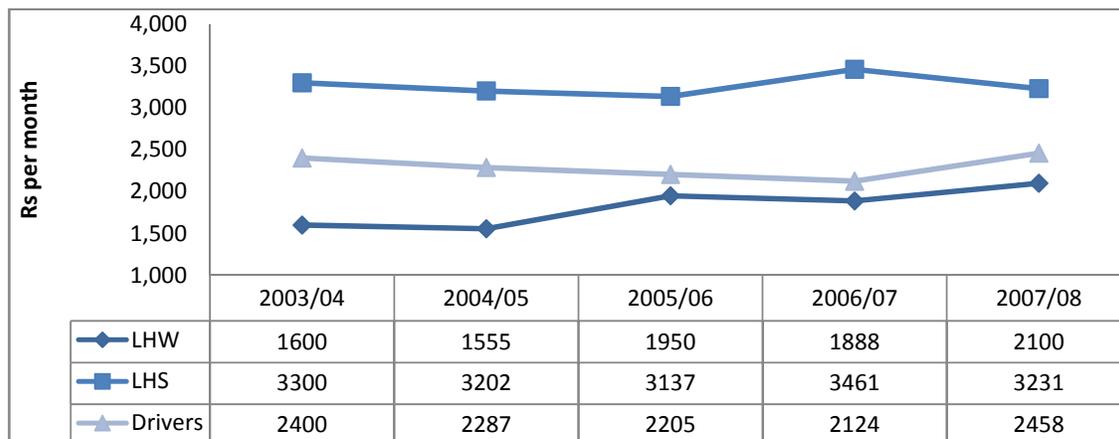
**Figure 5.3 Nominal LHW, LHS and driver stipends/salaries, 2003/04–2007/08**



Source: Salary data from the LHWP; and author's calculations.

Figure 5.4 shows that LHW stipends increased in real terms (using 2003/04 prices). A driver's salary decreased from 2003/04 to 2007/08, and only regained its original value in a substantial wage increase in 2007/08.<sup>57</sup> An LHS salary decreased in real terms from 2003/04 to 2005/06. There was an increase in 2006/07, but this was eroded by inflation in 2007/08 to below the level at which it had been at the start of the PC-1.

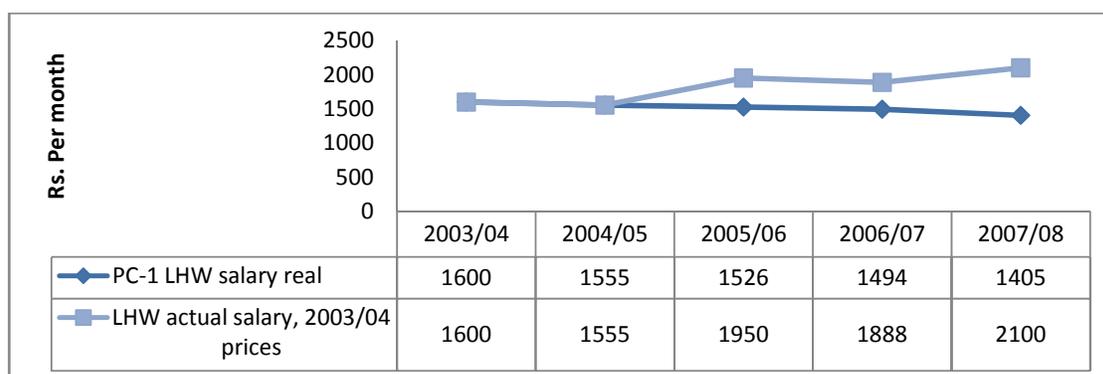
**Figure 5.4 Real LHW, LHS and driver stipends/salaries (2003/04 prices)**



Source: Salary data from the LHWP; and author's calculations.

The PC-1 proposed a regular increase in an LHW salary in nominal terms. However, had this been implemented as planned, due to inflation, this would have led (in real terms) to a decrease from Rs. 1,600 per month to Rs. 1,405 (in 2003/04 prices). Salary increases of, on average, around 8 percent per year resulted in an LHW salary increasing in real terms from Rs. 1,600 per month to Rs. 2,100, an increase of 31 percent (Figure 5.6).

**Figure 5.5 Comparison of LHWs real planned salary (PC-1) with actual real salary (2003/04 prices)**



Source: Salary data from the LHWP' and author's calculations.

<sup>57</sup> There are two categories of driver. Those working at the FPIU/PPIU/RPIU/DPIUs are paid according to Government Basic Pay Scales. The drivers that are considered here are the drivers working with the FPOs and the LHSs who are on fixed contracts. Their salary was enhanced to Rs. 4,200/- per month from January 2008. They received a further increase on 1 July 2008 of Rs. 150, taking their salary to Rs. 4,350 per month.

**Table 5.2 Relative change in an LHW real wage, 2003/04–2007/08**

	2003/04	2004/05	2005/06	2006/07	2007/08
LHW nominal salary p.m.	1,600.00	1,700.00	2,300.00	2,400.00	2,990.00
Real salary (2003/04)	1,600.00	1,555.35	1,950.23	1,887.78	2,099.87
Real salary as % of 2003/04 salary	100.00	97.21	121.89	117.99	131.24
CPI calculation (annual % change)		9.3	7.9	7.8	12.0
CPI Index	1.00	1.09	1.18	1.27	1.42

Source: Salary data from the FPIU; GoP statistics; and author's calculations.

While the LHW might not have the option of seeking a higher paid job, if she feels she is no longer being paid 'a fair day's pay for a fair day's work' she might seek to reduce the amount of effort she puts into her work, and therefore reduce her productivity (efficiency). This would be reflected in fewer hours of work and providing fewer services to her eligible clients.

On her current salary, the average LHW is working 30 hours per week, an increase on 20 hours per week in 2000. This meets the Programme's informal standard of 30 hours per week. However, seven of these working hours were spent working in connection with NIDs, therefore an LHW is only spending 23 hours working on her other services.

## 5.4 Level of services

In the previous evaluation, a performance measure of LHW service delivery was developed using a selection of 10 preventive services that an LHW offers. This measure has been replicated in this evaluation to enable comparisons to be made. The services in the performance measure cover LHW activities in hygiene, health education, vaccination promotion, family planning, pregnancy and birth, child nutrition and growth monitoring (see Box 5.1)

### Ten services included in the Performance Score

1. LHW talking about ways to improve cleanliness of water;
2. LHW talking about ways to improve hygiene;
3. LHW discussing family planning with women aged 15–49 years that are non-users of modern contraceptives;
4. LHW either supplying contraception to women aged 15–49 years that are users of modern contraceptives or referring them to a health centre;
5. LHW giving advice to mothers that have given birth since 2004 on which foods to eat during pregnancy;
6. LHW with mothers who have given birth since 2004 at the birth of visiting within a week of the birth;
7. LHW talking to mothers of children < 3 years about vaccination;
8. LHW encouraging mothers of children < 3 years to have their children vaccinated at the correct age;
9. LHW giving advice to mothers of children < 3 years on how to feed the child;
10. LHW weighing children < 3 years within the last three months.

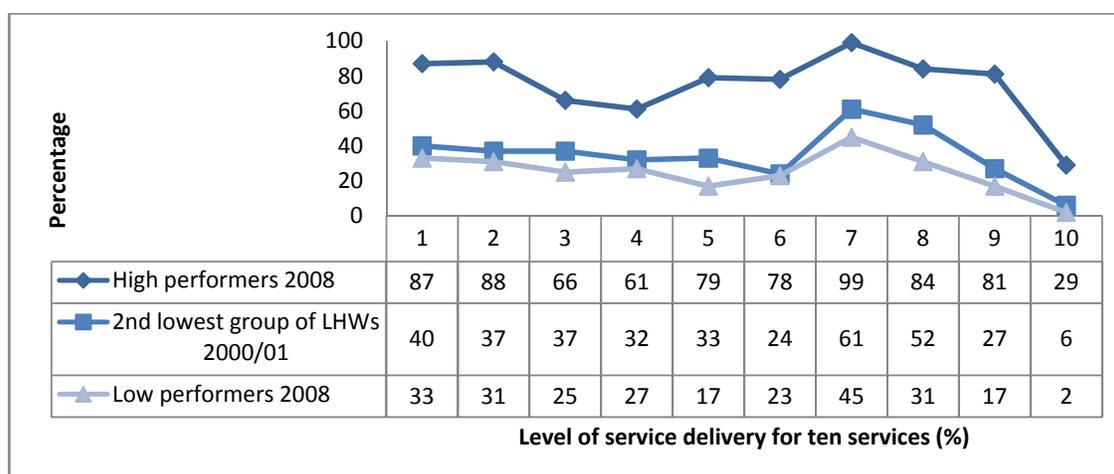
Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Using the performance measure, the evaluation team found major differences in the levels of service delivery amongst LHWs. The top quarter (the high performers) provide significantly more services to their eligible clients (78 percent) than the bottom quarter (the poor performers) (26 percent). In between, we have the good performers (63 percent) and those who are below average performers (49 percent).

The level of preventive and promotive services has increased since 2000. Service delivery has improved overall. On nearly every one of the ten measures that make up the performance score, the top performers are delivering a greater number of services. 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 what the second-to-lowest group of LHWs (the 25 percent to 50 percent of lower performers) were managing to deliver during the previous evaluation (Figure 5.5). Despite improved training and supervision, there are LHWs who are not applying themselves to their work. These workers represent a cost to the Programme and a lost opportunity to improve health status in the communities that they represent.

**Figure 5.6 Levels of service provision by high-performing LHWs and low-performing LHWs, and a comparison with the second-to-lowest group of performers from 2000/01**



Note: The ten services are in the order presented in Box 5.1.  
 Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

## 5.5 Visiting households

The LHW should visit all her households at least once a month. Top-performing LHWs are more likely to have visited their households (Table 5.3). In both cases, this is a huge improvement over the situation in 2000, when the lowest performing group of LHWs had only visited 45 percent of their households (Table 5.3) within the three months prior to the survey.

On average, LHWs who were not working on NIDS worked 24 hours in the previous week.

**Table 5.3 LHWs visits to households, in the previous three months, by performance score quartile, comparing 2000 with 2008**

Measure	Lowest quartile		Best quartile	
	2000	2008	2000	2008
Percentage of households who report that the LHW visited household within the last 3 months	45	74	86	94
Mean number of visits of LHW within the last 3 months per household, as reported by household	1.3	2.0	3.7	3.2

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

## 5.6 Drugs and contraceptives<sup>58</sup>

### 5.6.1 Cost of drugs and contraceptives

The two largest categories of expenditure in most public health programmes are personnel expenses and drug purchases. Drugs are a necessary component of health programmes, and their inadequate provision means expenditure on staff salaries and other health care costs might be used inefficiently, or simply wasted. For drugs and contraceptives, the financial study focuses on *price comparison analysis*, which is really a measure of procurement performance.

Comparative procurement information is available in the *International Drug Price Indicator Guide*.<sup>59</sup> By comparing the price paid for the most commonly used drugs with international prices, one can see whether the Programme is achieving maximum benefit out of available procurement funds, or whether savings are possible by switching to a cheaper supplier. The focus of the analysis is on those drugs that consume the largest portion of the overall drugs budget, where savings will most influence the size of the total drugs bill.

Eleven drugs were considered in our analysis. In 2007/08, the Programme spent Rs. 826.06 million on this package. If the Programme had purchased this package at the median international price for these drugs, it would have had to pay Rs. 1,474.27 million. This might represent economies of scale, or it could also reflect on quality of product (which is not considered here).<sup>60</sup>

Of the 11 drugs, ferrous fumarate consumes 23 percent of the total budget spent. However, the price of ferrous fumarate bought in Pakistan is similar to that of the median international price, and therefore had minimal effect on our savings.

Funds spent on paracetomal syrup was 20 percent of the total expenditure. This item led to significant savings for the Programme, because a large quantity was purchased at a low cost (29 percent of the median international price). Cotrimoxazole syrup also resulted in significant savings. It was bought at 25 percent of the median price. For items that were more expensive than the median international price, only low quantities were purchased (e.g. Mebendazole tablets were bought at twice the median international price but represent only 3 percent of the total drug expenditure).

<sup>58</sup> See Annex F for further tables on planned and actual drug and contraceptive purchasing and usage.

<sup>59</sup> Published annually by Management Sciences for Health, Arlington, VA.

<sup>60</sup> The Programme relies on the Ministry of Health laboratories in Karachi to provide quality assurance on all drug purchases prior to their release. For quality assurance purposes, the Programme might wish to seek assurance that the national testing laboratories are performing to international standards.

#### 4 Price Comparison Analysis: LHWP versus International Drug Price Indicator Guide for 2007/08 (MSH/W Bank)

Description	Form and unit	LHWP price paid per unit (US\$)	Median international price per unit (US\$/2)	LHWP/median international price (%)	Total value of purchases (Rs. million) 2007/08	Weighting of each drug purchased as % of total drug expense (%)	Total value of purchases at median international price (Rs. million)	Total value of purchases at median international price (Rs. million)
mol	Pack of 200 tablets, in strip/blister	0.70	0.48	145.13	72.14	9	49.71	
mol	Bottle, 60ml, with carton	0.12	0.44	28.51	168.089	20	589.68	
ne	Pack of 100 tablets, in strip/blister	0.82	0.81	102.30	45.436	6	44.41	
ne syrup	Bottle, 60ml, with carton	0.11	0.09	117.97	51.464	6	43.62	
umarate d tablets	Pack of 1,000 tablets, in strip/blister	1.95	1.80	108.46	188.188	23	173.52	
azole	Bottle, 50ml, with carton	0.12	0.47	25.27	63.12	8	249.79	
syrup	Bottle, 120 ml, with carton	0.10	0.17	61.41	60.995	7	99.33	
benzoate	Bottle, 60ml, with carton	0.10	0.11	90.69	15.185	2	16.74	
azole	Pack of 100 tablets, in strip/blister	0.62	0.30	207.35	27.645	3	13.33	

Description	Form and unit	LHWP price paid per unit (US\$)	Median international price per unit (US\$/2)	LHWP/median international price (%)	Total value of purchases (Rs. million) 2007/08	Weighting of each drug purchased as % of total drug expense (%)	Total value of purchases at median international price (Rs. million)	Total value of purchases at median international price (Rs. million)
Acetamol syrup	Bottle, 30ml, with carton	0.10	0.16	62.34	50.526	6	81.05	
Hydrochlorothiazide	Pack of 20 sachets	0.79	1.07	73.64	83.271	10	113.08	
					826.06	100	1,474.27	

Prices paid in FY 2007/2008; average FOB cost/unit. US\$ Exchange rate as at 30/06/08; US\$ Exchange Rate Assumption (Q4 2007/08) = 0.68; ha...  
 cost (as percentage of FOB price). Percentage recommended by IDPIG = 20 to 30 percent.

### of expenditure, 2003/04–2007/08

Medicines and equipment expenditure, 50 percent was spent on five items: ferrous fumarate and folic acid tablets, oral contraceptive pills, acetamol syrup, cotton bandages, and eye ointment (Table F.1). There was little expenditure on functional equipment for the L...  
 es included weighing scales, kit bags, scissors, torches, and thermometers.

Items were purchased each year. This is especially true of the functional equipment, but is also the case with oral contraceptive pills, acetamol syrup, cotton wool, Vitamin B complex syrup, Cotrimoxazole syrup, sticking plasters, and benzyl benzoate lotion.

## 5 Expenditure on drugs and functional equipment, 2003/04–2007/08 (Rs. million)

Item	Specifications	2003/04	2004/05	2005/06	2006/07	2007.08	Total	% of total	Cu
umarate d tablets	Pack of 1,000 tablets, in strip/blister	58.911	105.643	22.866	41.431	188.188	417.038	14.71	
ceptive	Cycle	0	0	81.134	152.861	58.086	292.08	10.30	
mol syrup	Bottle, 60ml, with carton	0	0	90.342	9.769	168.089	268.201	9.46	
ndage	Pack of 12, with packing	0	113.223	52.084	20.309	31.378	216.994	7.65	
ent	Tube, 4 gm, with carton	29.369	30.237	38.509	52.135	55.749	205.999	7.27	
ol	Roll, 250 gm, with packing	0	97.547	37.415	11.54	48.771	195.274	6.89	
complex	Bottle, 120 ml, with carton	60.521	17.675	0	36.958	60.995	176.148	6.21	
dration	Pack of 20 sachets	12.722	35.808	21.723	21.627	83.271	175.152	6.18	
mol	Pack of 200 tablets, in strip/blister	12.609	28.282	27.861	16.983	72.14	157.874	5.57	
azole	Bottle, 50ml, with carton	18.257	0	32.642	16.282	63.12	130.302	4.60	
ne syrup	Bottle, 60ml, with carton	16.629	18.166	10.601	15.348	51.464	112.209	3.96	
e syrup	Bottle, 30ml, with carton	12.457	8.107	17.287	18.106	50.526	106.483	3.76	
ne	Pack of 100 tablets	17.256	20.725	5.22	13.301	45.436	101.937	3.60	

Item	Specifications	2003/04	2004/05	2005/06	2006/07	2007.08	Total	% of total	Cu
	in strip/blister								
zole	Pack of 100 tablets, in strip/blister	6.491	14.341	16.196	4.375	27.645	69.048	2.44	
laster	One roll, with carton	0	27.742	3.465	5.514	28.918	65.639	2.32	
lotion	Bottle, 50ml, with carton	4.688	10.111	4.155	6.594	20.399	45.947	1.62	
enzoate	Bottle, 60ml, with carton	6.866	0	13.295	10.441	15.185	45.786	1.62	
ghing	One piece	0	0	0	0	19.118	19.118	0.67	
ag	One piece	0	0	0	0	19.069	19.069	0.67	
	One piece	0.539	1.699	2.255	0.175	1.941	6.611	0.23	
ch	One piece, with two cells	0	1.196	0.889	0	1.992	4.077	0.14	
eter	One piece	0	0	2.085	0.248	1.515	3.848	0.14	
		<b>257.315</b>	<b>530.502</b>	<b>480.024</b>	<b>453.997</b>	<b>1112.996</b>	<b>2834.834</b>		

There may be some difference between drugs ordered and drugs paid for at the end of the fiscal year.

PIU of LHWP; Ministry of Health.

## 5.6.2 Availability of basic equipment and administrative material

While the survey found that most LHWs have their various charts and manuals, there was, as could be predicted from the pattern of expenditure, a severe shortage of functional equipment, scissors, weighing scales, torches, and thermometers. Almost all LHWs had either the old or the new diary and manual in 2008 (Table 5.6).<sup>61</sup> In the previous evaluation, 91 percent of LHWs had weighing scales; this figure is now only 32 percent. Lack of weighing scales means that the growth monitoring service cannot be provided.<sup>62</sup> The Programme has not succeeded in procuring sufficient equipment to provide for additional LHWs and to replace broken equipment. This is a failure of procurement (see Systems Review).

**Table 5.6 Percentage of LHWs with functional equipment and administrative material**

Item	2008
Weighing scale	32
Thermometer	59
Torch	36
Scissors	73
Household register	97
Diary (old or new format)	96
Manual (old or new version)	95
Blank growth monitoring cards	72
ARI case management charts (all 3)	90
Diarrhoea case management chart	89
Plastic cards	72
Family planning charts	89
Eye chart	78
Maternal health chart	89
Health house board	84
Blank referral slips	76

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

### Availability of drugs and medicines

Based on the planned quantities of drugs required per month per LHW set out in the PC-1, the drugs purchased by the Programme from FY 2003/04 to 2007/08 were sufficient to provide between 26,000 and 75,000 LHWs (excluding stocks and wastage), depending on the item (Table 5.7).<sup>63</sup>

<sup>61</sup> Of LHWs, 79 percent have the new diary format, and 86 percent have the updated LHW manual.

<sup>62</sup> See Quantitative Survey Report.

<sup>63</sup> See Annex F for details.

LHW data from the PSP database suggests that an average of 80,191 LHWs were working annually over the five years.<sup>64</sup> Given this level of procurement and the level of medicines specified in the PC-1, thousands of LHWs would have been experiencing shortages, unless the level specified in the PC-1 was very inaccurate.

**Table 5.7 Shortfall in the level of procurement and supply of medicines to the level specified in the PC-1**

Item	Accounting unit	Average procurement/month 2003/04–2007/08	Monthly need as specified in the PC-1	How many LHWs could have been supplied? (A)	Number of LHWs that could not have been supplied (B = 80,191-A)	% LHW that could not be supplied (B/A%)
Paracetamol tablets	Pack of 200 tablets, in strip/blister	64,910	1	64,910	15,281	19.06
Paracetamol syrup	Bottle, 60ml, with carton	627,270	10	62,727	17,464	21.78
Chloroquine tablets	Pack of 100 tablets, in strip/blister	46,626	1	46,626	33,565	41.86
Chloroquine syrup	Bottle, 60ml, with carton	317,767	5	63,553	16,638	20.75
Ferrous fumarate + folic acid tablets	Pack of 1,000 tablets, in strip/blister	57,026	1	57,026	23,165	28.89
Antiseptic lotion	Bottle, 50ml, with carton	74,815	1	74,815	5,376	6.70
Cotrimoxazole syrup	Bottle, 50ml, with carton	317,302	5	63,460	16,731	20.86
Eye ointment	Tube, 4 gm, with carton	556,194	10	55,619	24,572	30.64
Vitamin B complex syrup	Bottle, 120 ml, with carton	464,586	7	66,369	13,822	17.24
Benzyle benzoate lotion	Bottle, 60ml, with carton	118,524	2	59,262	20,929	26.10
Sticking plaster	One roll, with carton	69,655	1	69,655	10,536	13.14
Mebendazole tablets	Pack of 100 tablets' in strip/blister	39,901	1.5	26,601	53,590	66.83
Cotton wool	Roll; 250 gm; with packing	74,755	1	74,755	5,436	6.78

<sup>64</sup> This includes those funded by the WHP and RHP, as the procurement figures used here are for total procurement.

Item	Accounting unit	Average procurement/month 2003/04–2007/08	Monthly need as specified in the PC-1	How many LHWs could have been supplied? (A)	Number of LHWs that could not have been supplied (B = 80, 191-A)	% LHW that could not be supplied (B/A%)
Cotton bandage	Pack of 12; with packing	68,855	1	68,855	11,336	14.14
Piperazine syrup	Bottle; 30ml; with carton	287,091	5	57,418	22,773	28.40
Oral rehydration salts	Pack of 20 sachets	61,778	1	61,778	18,413	22.96
Oral contraceptive pills	Cycle	484,378	10	48,438	31,753	39.60
Average						25.04

Source: PC-1, Logistic Section, LHWP; and author's calculations.

### 5.6.3 Undersupply of medicines and dispensing rate

The Quantitative Survey reported the amount of medicines the LHWs had dispensed in the previous week. If the item were in stock, the LHWs were dispensing more than planned of eight medicines, including paracetamol, chloroquine, cotrimoxazole, vitamin B Complex, piperazine syrup, and benzyl benzoate lotion. LHWs are dispensing less than planned of oral rehydration salts, mebendazole, and iron and chloroquine tablets.

While the dispensing rate provides some information on the demand for LHW medicines, it is not possible, given the level of medicines procured over the five-year study period, for this rate to have been constant (see also Annex F). The procurement of medicines was lower than planned in the PC-1. It was also at too low a level to implement a replenishment system (Table F.1 in the Annex).

If each LHW had received her full complement of the medicines listed in Table 5.8, as specified in the PC-1, it would have cost approximately Rs. 832.41 per month in 2007/08. However, the dispensing rate at the time of the survey results in a price closer to Rs. 796.36 per month.

**Table 5.8 Comparison between the costs of an LHW kit in accordance with the PC-1 versus actual dispensing (if the item were in stock) at the time of the survey**

Item	Accounting unit	Procured in 2007/08 at Rs. per unit	Monthly requirement (PC-1)	Actual monthly dispensing rate by accounting unit (1)	Difference between monthly requirements in PC-1 and actual dispensing	Monthly cost if dispensed as per PC-1 (Rs.)	Monthly cost using actual dispensing rate (Rs.)
Paracetamol tablets	Pack of 200 tablets, in strip/blister	47.37	1	0.75	0.25	47.37	35.53
Paracetamol syrup	Bottle, 60ml, with carton	8.49	10	15.17	-5.17	84.9	128.79
Chloroquine tablets	Pack of 100 tablets, in strip/blister	56	1	0.34	0.66	84.9	19.04
Chloroquine syrup	Bottle, 60ml, with carton	7.22	5	5.63	-0.63	84.9	40.65
Iron tablets	Pack of 1,000 tablets, in strip/blister	132.75	1	0.44	0.56	84.9	58.41
Cotrimoxazole syrup	Bottle, 50ml, with carton	7.99	5	5.81	-0.81	84.9	46.42
Vitamin B complex syrup	Bottle, 120 ml, with carton	6.89	7	10.80	-3.8	84.9	74.41
Benzyl benzoate lotion	Bottle, 60ml, with carton	6.66	2	5.53	-3.53	84.9	36.83
Mebendazole tablets	Pack of 100 tablets, in strip/blister	42.3	1.5	0.29	1.21	84.9	12.27
Piperazine syrup	Bottle, 30ml, with carton	37.18	5	7.01	-2.01	84.9	260.63
Oral rehydration salts	Pack of 20 sachets	124.44	1	0.67	0.33	84.90	83.37
<b>Total cost</b>					<b>832.41</b>	<b>796.36</b>	<b>Total cost</b>

Note: The monthly dispensing rate was calculated by multiplying the weekly dispensing rate obtained from the Quantitative Survey by 52 and dividing by 12, and then converting into accounting units.

Sources: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008; and Logistics Section, LHWP.

#### 5.6.4 Out of stock

At the time of the survey there were stock-outs on all items. The Programme standard is that no more than 10 percent of LHWs should be out of stock for more than two months on any item. This standard was not met for 11 items: paracetamol, cotrimoxazole, piperazine and chloroquine syrups; chloroquine, mebendazole, and iron and folic acid tablets; oral rehydration salts; eye ointment; antiseptic lotion; and injectable contraceptives (Table 5.9). As in the 3rd Evaluation, expired stock was not a problem (tabulation not shown).

Obviously, lack of finance does not always fully explain shortages. The non-implementation of a replenishment system that ensures buffer stock is available together with distribution failures also lead to LHWs not having sufficient supplies. However, the current level of drug spending is inadequate. This evidence suggests that greater quantities of drugs need to be purchased to ensure that the LHW can provide the basic curative services she is supposed to offer and that the community expect of her.

**Table 5.9 LHW out-of-stock items for two and three months**

Item	% of LHWs with item out of stock	% of all LHWs, who have been out of stock for more than 2 months	% of all LHWs, who have been out of stock for more than 3 months
Paracetamol tablets	32	5	4
Paracetamol syrup	45	13	9
Chloroquine tablets	56	22	14
Chloroquine syrup	58	24	13
Mebendazole tablets	62	28	19
Piperazine syrup	50	16	10
Oral rehydration salts	41	11	4
Eye ointment	59	13	8
Cotrimoxazole syrup	69	21	14
Vitamin B complex syrup	40	5	4
Iron and folic acid tablets	34	16	10
Antiseptic lotion	60	14	10
Benzyl benzoate	53	9	6
Bandages (cotton)	42	10	7
Condoms	33	4	3
Injectable contraceptives	76	22	16
Oral contraceptive pills	22	2	1

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

### 5.6.5 Contraceptives

It is inefficient for LHWs to convince clients to use contraceptives and then not be able to supply them. This is particularly true when she is an important source of free contraceptives to women.

Stock-outs of contraceptives across the country were low. Only 3 percent of LHWs had been without condoms in their kit for more than two months, and only 2 percent of LHWs had been without oral contraceptives. However, Sindh and Balochistan had a shortage of condoms, and Sindh was also experiencing shortages of oral contraceptive pills at the time of the survey.

**Table 5.10 Percentage of LHWs with stock-out of contraceptives for more than two months, by province**

Item	Punjab	Sindh	NWFP	Balochistan	AJK/ FANA	Overall
Condoms	1	9	5	8	2	3
Oral contraceptive pills	0	7	2	2	0	2

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Condoms are procured by UNFPA for the Programme on the international market. The Programme has been purchasing its own oral contraceptives since 2005/06, as the local market began to offer them at around half the cost of the international price. The LHW, if she has the item in stock, is dispensing more condoms and oral contraceptive pills than was estimated in the PC-1 as her monthly requirement.

**Table 5.11 Comparison between the costs of an LHW kit in accordance with the PC-1 versus actual dispensing (if the item were in stock) at the time of the survey**

Item	Accounting unit	Procured in 2007/08 at Rs. per unit	Monthly requirement (PC-1)	Monthly cost if dispensing as per PC-1 (Rs.)	Actual dispensing rate (1)	Monthly cost using actual dispensing rate (Rs.)
Condoms	Pack (100)	0.03	1.00	0.03	1.11	0.04
Oral contraceptive pills	Cycle	10.05	10.00	100.50	13.43	134.97

Note: The monthly dispensing rate was calculated by multiplying the weekly dispensing rate obtained from the quantitative survey by 52 and dividing by 12.

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

The budget for contraceptives was planned at Rs. 1,509.21 million for the period of the PC-1. If we compare real planned expenditure in 2003/04 prices (Rs. 1,263.53) with the real actual expenditure in 2003/04 prices (Rs. 952.37), the contraceptive budget was underspent by 25 percent.

However, there was contribution from DFID-UK, with funds channelled through the Ministry of Health for injectable contraceptives, and a small percentage of condoms and oral contraceptive pills. In 2006, 7 million oral contraceptives were purchased on the local market.

**Table 5.12 Comparison of quantities of contraceptives procured by DFID and by Programme funds, by calendar year**

<b>Calendar year</b>	<b>Item</b>	<b>Units supplied by Donor (DFID funds through MoH)</b>	<b>Units supplied by Programme funds</b>
<b>2004</b>	Oral contraceptive pills	–	–
	Male condoms	–	–
	DMPA injections	–	–
<b>2005</b>	Oral contraceptive pills	–	7,600,000
	Male condoms	–	72,648,000
	DMPA injections	–	–
<b>2006</b>	Oral contraceptive pills	2,750,000	–
	Male condoms	16,560,000	158,112,000
	DMPA injections	200,000	–
<b>2007</b>	Oral contraceptive pills	–	15,073,000
	Male condoms	–	302,400,000
	DMPA injections	220,000	–
<b>2008</b>	Oral contraceptive pills	–	–
	Male condoms	–	58,752,000
	DMPA injections	1000000	–
<b>Total</b>	Oral contraceptive pills	–	–
	Male condoms	–	15,552,000
	DMPA injections	–	–
<b>Percentage</b>	Oral contraceptive pills	2,750,000	22,673,000
	Male condoms	16,560,000	607,464,000
	DMPA injections	1,420,000	–
	Oral contraceptive pills	10.82	89.18
	Male condoms	2.65	97.35
	DMPA injections	100.00	0.00

Source: Logistics Section, LHWP.

## **5.7 Capacity-building and skill development**

### **5.7.1 Overall training budget**

The Programme had a budget of Rs. 735 million for all capacity development for the period June 2003–June 2008. Of this, Rs. 711 million was spent by June 2008. The training budget is only 3.76 percent of Programme expenditure. It is an area that receives some support from development partners, particularly with pilot trainings and printing.

The main cost of training comprises the allowances paid to LHWs and health facility trainers. LHWs receive Rs. 50 per day for the 64 days of their initial training, while the three health facility trainers receive 20 percent of their basic salary for the 15 months' LHW training (including the 64 days' initial training and the one week per month training for the 12 months that follow).

The Programme also provides 15 days' refresher training each year to LHWs. The costs of this now represent most of the training budget. As the bulk of the training takes place at the health facility, this keeps costs to a minimum. Aside from workshop costs, the main costs are generated by printed materials.

### **5.7.2 Knowledge score improved**

The Programme target was for 90 percent of LHWs to score over 80 percent in the knowledge test. While only just over 30 percent of LHWs scored over the 80 percent, the average score of 74 percent was up five points from the previous evaluation.

However, around 8 percent of LHWs scored below 60 percent, which is considered unacceptable by the Programme. LHWs in Balochistan had a significantly lower level of knowledge, scoring 10 percentage points below the mean.

Another Programme goal was that all LHWs should have the knowledge score of the highest performing LHWs in the previous evaluation (the top 25 percent of LHWs scored an average of 71 percent). In this evaluation, 67 percent of LHWs scored over 70 percent on the knowledge test. While the goal was not achieved, this is a substantial improvement.

The LHS knowledge has also improved: 44 percent of LHSs scored over the Programme target of 80 percent on the knowledge test. This compares with 27 percent in the previous evaluation (Table 5.1).

Duration of service, educational attainment and training all contributed to higher scores.<sup>65</sup> The biggest contribution was the LHWs each having a counselling card refresher training manual (showing that training had been attended). These LHWs scored, on average, 6 percentage points higher. LHWs with over 10 years' experience scored, on average, nearly 4 percentage points higher. Knowledge scores were higher in NWFP and AJK/Northern Areas for both LHWs and LHSs.

### **5.7.3 Training of LHWs completed**

All LHWs have completed their initial three months' training, and most have attended the period of part-time training, of one week per month for a year, that follows initial training.

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<sup>65</sup> See Quantitative Survey results.

Almost all LHWs had had some additional training. In the previous year, the Programme had planned for refresher training courses: OBSI (five days),<sup>66</sup> Child Health (three days), Injectable Contraceptives (three days), and Revised MIS tools (four days). Overall, 81 percent of LHWs attended the refresher training in Child Health; 63 percent Injectable Contraceptives; 71 percent OBSI/Family Planning, and 45 percent Revised MIS tools (Figure 5.13).

**Table 5.13 Percentage attendance at refresher trainings by LHWs, 2007/08**

	Punjab	Sindh	NWFP	Balochistan	AJK/ FANA	Overall
Child health	83	85	88	59	38	81
Injectable contraceptives	71	57	55	35	68	63
Revised MIS tools	44	51	49	17	50	45
OBSI/family planning	70	71	76	69	69	71
Counselling cards	70	82	77	72	37	73

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

For the Programme to increase the knowledge and skills of the LHW and ensure her professional competence, they might need to spend more on incentives to ensure high quality training and better quality control on training delivery.

## 5.8 Direct supervision

The LHS, on average, works 24 days each month. In June 2007/08, the Programme was paying Lady Health Supervisors (who supervise, on average, 23 LHWs) Rs. 4,600 per month. This is less than a newly appointed primary school teacher on Basic Pay Scale 9 (BPS 9), who receives Rs. 5,466 per month, inclusive of basic allowances. The Lady Health Visitor who works at the health facilities is also on the same pay scale, which is also less than the minimum wage. Previously, an LHS had pay parity with government administrative officers.

### 5.8.1 Ratio of LHS to LHW

A ratio of 1 LHS to 25 LHWs was used to cost the budget in the PC-1.<sup>67</sup> The survey found that the ratio of LHS to LHWs had no bearing on whether the LHW was a high performer. For management and cost purposes, the Programme should retain a ratio of between 22 to 30 LHWs per LHS. Higher numbers of LHSs in a district are more difficult for the DPIU to manage.

In June 2003, there were 2,007 LHSs recorded in the PSP database, supervising 70,738 LHWs (a ratio of 1:35). By June 2008, according to the PSP database, there were 3,583

<sup>66</sup> OBSI and Injectable Contraceptives are, in part, refresher trainings in family planning knowledge and skills. It is possible that LHWs who reported having undergone family planning training had attended either OBSI or Injectable Contraceptives courses, or both.

<sup>67</sup> Lower targets were set in the text of the PC-1 (1:25, falling to 1:20 in difficult areas) but the budget assumed 1:25.

LHSs supervising 89,125 LHW (a ratio of 1: 25). The survey that was conducted between July and November 2008 found a ratio of 1:23.

The budget for LHSs in real terms, given the actual annual salary (which was higher than forecast) would have allowed an average number of 3,485 LHSs to be employed per annum over the five-year study period (Table 5.14). This is close to the planned average number of LHSs, which (at a ratio of 1:25) would have been 3,500 per annum (assuming average recruitment under the PC-1 of 88,180 LHWs).

The actual real expenditure, however, was less than had been budgeted and, given the increase in an LHS salary, should have funded only 2,884 LHS per annum, on average. This is close to the actual average recorded in the PSP database of 2,907 (Table 5.14).

As has already been mentioned, the real value of an LHS salary fluctuated over this period, but ultimately was slightly lower by June 2007/08 than it had been in June 2003/04 (Figure 5.14).

The Programme had intended to conduct a remuneration review during the period of this PC-1, but this did not take place. It would be beneficial to have a rational benchmark or formula included in the PC-1 for core staff salaries.

**Table 5.14 Comparison of real budget for LHSs with actual real expenditure (2003/04 prices)**

	2003/04	2004/05	2005/06	2006/07	2007/08	Average no. of LHSs
Budget (real, 2003/04 prices)	141	137	136	136	132	–
Actual annual salary (real, 2003/04 prices)	39,600	38,424	37,644	41,532	38,772	–
Potential number of LHS that could be funded	3,556	3,561	3,623	3,276	3,409	3,485
Actual real expenditure (2003/04 prices)	88	110	116	120	130	–
Actual annual salary (real, 2003/04 prices)	39,600	38,424	37,644	41,532	38,772	–
Number of LHS that could be funded	2,222	2,865	3,094	2,890	3,351	2,884
Number of LHS recorded in the PSP database	2,052	2,518	3,064	3,352	3,549	2,907

Note: The budget line for LHS salaries includes the Accounts Supervisors. There should have been one or two Accounts Supervisors per district office. They have not been disaggregated, and are included here as a part of the population of LHSs.

Source: Statements of Expenditure; salary data; and author's calculations.

## 5.9 Vehicle procurement

The purchase of vehicles was planned to be 6.24 percent of the budget. In fact, the vehicle budget was underspent and this resulted in it being 5.31 percent share. Identified for LHS use, the Suzuki Ravi Pick-up cost the Programme about Rs. 312,000 and the Suzuki Potohar Jeep, for more difficult terrain, cost around Rs. 618,000.

**Annualising capital costs** If we annualise the capital cost of vehicles to reflect the expected life of the investment (ten years), the actual unit cost of an LHW for the period 2003/04–2007/08 (in 2003/04 prices) does not change substantially (see Annex E).

Over the life of the Programme, 4,101 vehicles have been purchased by the Programme under the PC-1 (Table 5.15). Of these, 1,087 are over ten years old and, according to Programme policy, should have been disposed of, but have not. In addition, 86 vehicles were purchased and provided to the Programme through the Reproductive Health programme. There are additional vehicles that have been provided by donors.

**Table 5.15 Number of vehicles purchased per year and the number of vehicles condemned by the LHWP, 1993–2008**

Year of purchase	Planned purchase of vehicles after 2002	Actual no. of vehicles purchased
1993/94	–	–
1994/95	–	275
1995/96	–	–
1996/97	–	812
1997/98	–	–
1998/99	–	–
1999/00	–	33
2000/01	–	–
2001/02	Already purchased: 1484	364
2002/03	840	240
2003/04	1,884	500
2004/05	Replacement of 10-year-old vehicle: 275	709
2005/06	–	1168
2006/07	Replacement of 10-year-old vehicle: 812	–
2007/08	–	–
<b>Total</b>	<b>5,295</b>	<b>4,101</b>

Source: PC-1; and Vehicle Procurement data from the FPIU.

On average, there are 33 vehicles per district. Districts reported that 28 percent of their vehicles were non-operational at the time of the survey, and 33 percent of driver positions were vacant. In the month preceding the survey, only 60 percent of the LHSs had full time access to a vehicle, and a further 17 percent had partial access. This is an increase from 2000, when only 37 percent of LHSs had had full time access, and 26 percent had had part-time access in the previous month. However, there are insufficient operational vehicles and drivers to provide every LHS with a vehicle; 22 percent of LHSs have no access to vehicles.

**Table 5.16 LHS access to Programme vehicles and POL received**

Measure	2008 (%)
<b>Supervisor's usual access to a Programme vehicle</b>	
Usually or always available	72
Sometimes available	6
Never	22
Total	100
<b>Access to vehicle in month preceding the survey</b>	
Full-time	60
Part-time	17
None	23
Total	100
Percentage of supervisors having a monthly POL budget	77
Percentage of (all) supervisors receiving any POL allowance in previous month	58
Percentage of the supervisors who used public transport during previous month	20

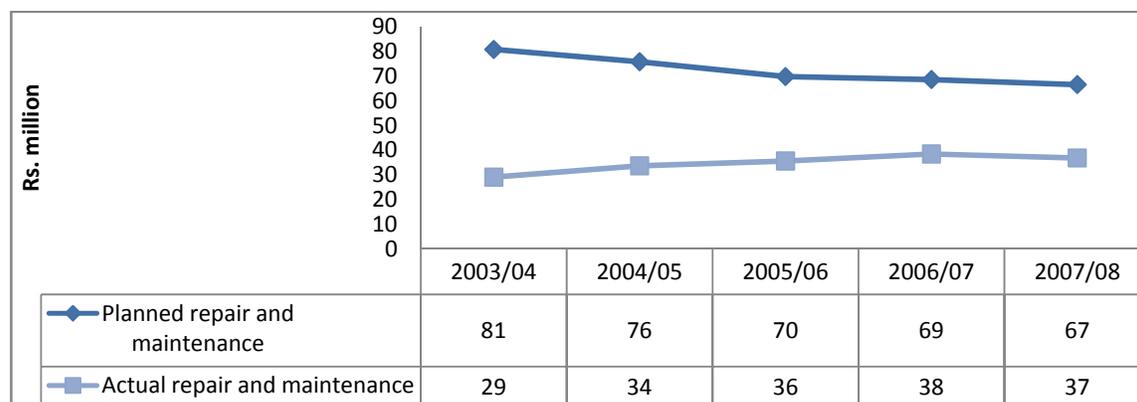
Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Access to a vehicle, whether full-time or part-time, varies by province. NWFP and AJK/FANA are able to provide a higher level of access.

### 5.9.1 Vehicle repair and maintenance

Expenditure on vehicle maintenance was much less than planned (Figure 5.6). Given the inability of the Programme to condemn vehicles and the age of the fleet, it is not surprising that over one quarter of the fleet at district level and below was non-operational at the time of the survey.

**Figure 5.7 Comparison between real planned repair and maintenance of vehicles and real actual (2003/04 prices)**



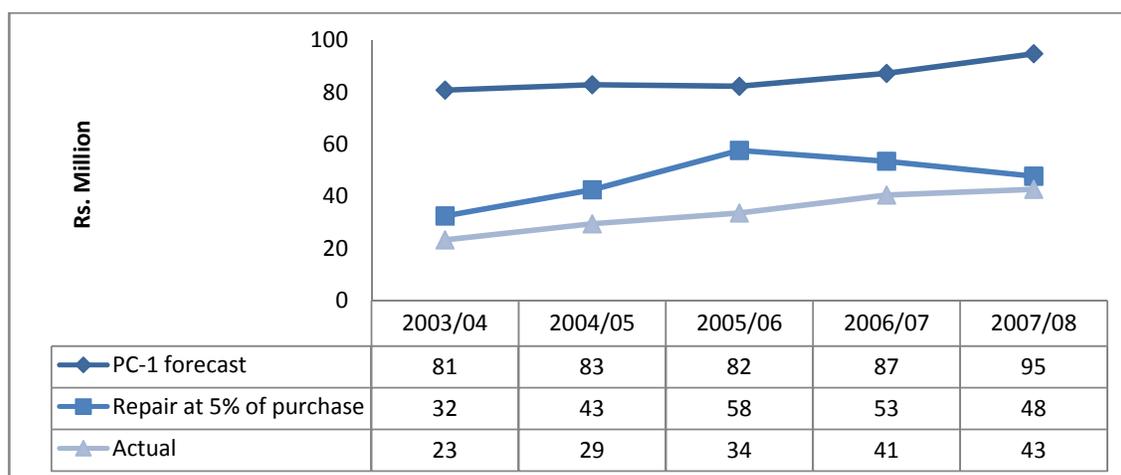
Source: PC-1 budget; Statements of Expenditure; FPIU; and author's calculations.

The repair and maintenance of vehicles was underspent for both those used by the LHSs and for those used by the rest of the Programme (FPO, FPIU, PPIU and District Coordinators). Rs. 333.36 million had been budgeted for LHS repairs, and only Rs. 169.442 was spent.

The previous financial analysis (March 2002) stated that, in terms of maintenance norms, roughly 5 percent of the purchase value of the car should be invested annually. The PC-1 budget forecast was higher than this (Figure 5.7).

However, actual expenditure on repair and maintenance of vehicles was below even this maintenance norm.

**Figure 5.8 Comparison between PC-1 forecast, a budget at 5 percent of purchase price, and the actual expenditure.**



Source: PC-1 budget; Statements of Expenditure; and author's calculations.

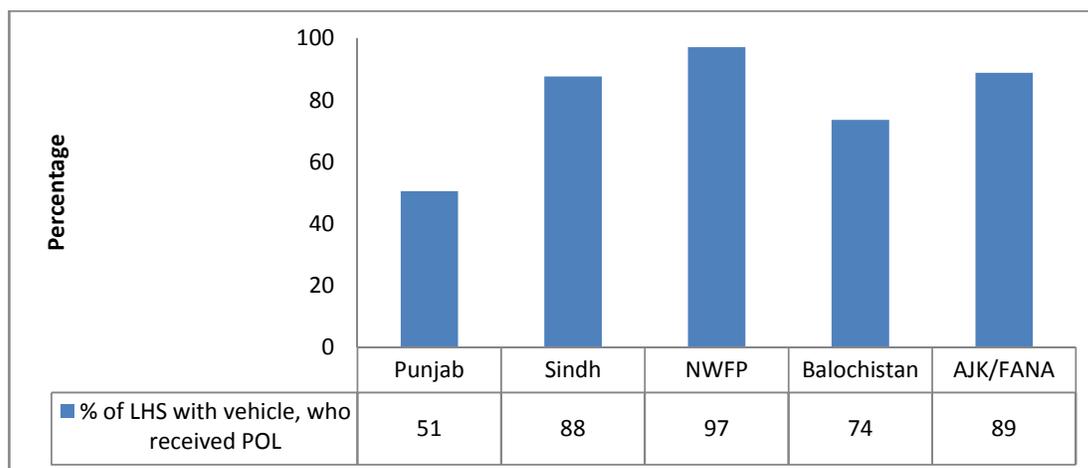
The actual budget for repairs and maintenance for the five-year study period can be compared to a budget of 5 percent.

Our research confirms the situation, and found that there are many vehicles that are in need of major repair and maintenance, for which the budget at the district and provincial levels is either insufficient or not drawn on. In other cases, there are vehicles that are beyond repair and need to be replaced. The PC-1 proposes an economic life of seven years for a vehicle, and ten years' actual life. In a report in January 2009, the Programme stated that around 2 percent of vehicles had been stolen, burnt or destroyed, and a maximum of 5 percent had actually been condemned or written off.

### 5.9.2 Availability of POL

The system for providing POL to those LHSs who had access to a vehicle is working significantly better in NWFP, AJK/FANA and Sindh than in the Punjab.

**Figure 5.9 Percentage of those LHSs who had access to a vehicle in the month previous to the survey and received POL**



Source: Quantitative Survey Report, 4th Evaluation, August, 2009.

### 5.9.3 Limited POL

Not all supervisors who had full-time or partial access to a vehicle had received POL in the previous month. The petrol allowance costed in the PC-1 is Rs. 780.857 million. The allocation per LHS is 70 litres per month. In practice, allocations can be varied within the district, depending on the requirements for coverage by various LHSs.

It is assumed that, in order to visit all LHWs twice each month, an LHS would need to travel around 925 km.<sup>68</sup> Assuming, as in the previous Finance and Economic Report, fuel consumption of 9 km per litre, an average of 103 litres per month are required. The 70 litres per month would not be sufficient.

If the actual POL expenditure each year for the five years is divided by the number of vehicles the Programme has recorded as purchasing, we have the expenditure per vehicle per year. This can then be converted to POL per vehicle per month.

If petrol prices had been Rs. 35 per litre, for the last two years of the period there would have been sufficient POL provided. However, in June 2008 the pump price was Rs. 80.77 per litre, and this would have provided an allowance of only 57 litres to be purchased.

The lower actual price a year earlier, in June 2007, of Rs 64.88 per litre would have allowed for the purchase of 70 litres.

If we limited every vehicle to 70 litres per month, the cost in June 2007 would be Rs. 4,542 and the cost in June 2008 would be Rs. 5,654.

<sup>68</sup> The previous Financial and Economic Report assumed that LHSs would be required, on average, to travel 1,000 km each month to visit all of their LHWs twice a month. The average number of LHWs per Supervisor was 27; the average in 2008 is 25. There has also been a reduction in the number of health facilities the LHS has to cover. The assumption now has been changed to 925 km each month.

**Table 5.17 Number of litres of POL, at varying prices**

	2003/04	2004/05	2005/06	2006/07	2007/08
Total POL expenditure (Rs. million)	46.974	68.479	109.151	165.873	164.945
Number of vehicles purchased	2,224	2,658	3,826	3,014	3,014
POL per vehicle/year (Rs.)	21,121	25,763	28,529	55,034	54,726
POL per vehicle/month (Rs.)	1,760.12	2,146.95	2,377.40	4,586.18	4,560.53
Rs. 35/litre permits the purchase of:	50.29	61.34	67.93	131.03	130.30
Rs. 64.88/litre permits the purchase of:	–	–	–	70.69	70.29
Rs. 80/litre permits the purchase of:	–	–	–		57.01
To buy 70 litres, the price/litre would be	25.14	30.67	33.96	65.52	65.15

Note: These calculations do not take into account the cost of oil and lubricants.

Source: Expenditure Statements and Vehicle Purchase statements from FPIU; and author's calculations

Further vehicles need to be purchased; existing vehicles need to be adequately maintained, repaired and allocated; and adequate petrol allowances need to be given to LHSs to ensure that each LHS can carry out her monthly visits to LHWs efficiently. Vehicles that are unable to be repaired should be condemned.

#### 5.9.4 Management and monitoring

The planned share of the real cost of this category in the MTBF budget for the PC-1 is 4.6 percent. The actual share of real expenditure was 2.45 percent.

There was insufficient expenditure on management and monitoring. Management and monitoring includes: salaries/allowances and honorariums for staff at the implementation units, the project allowance of 20 percent of basic pay for staff on deputation to the Programme, travel allowances and daily allowances for meetings and workshops, repairs of managers' and inspectors' (FPOs) vehicles, POL for these vehicles, and pension contributions.

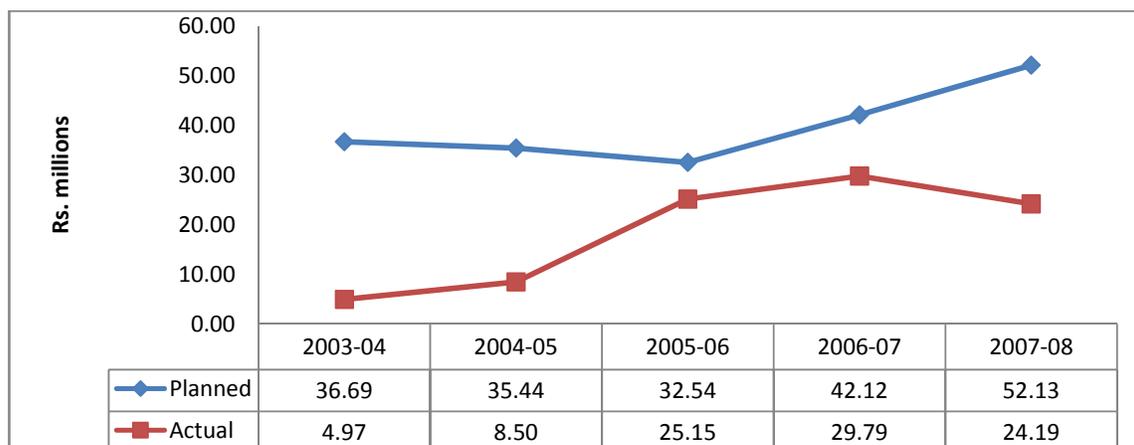
The planned real cost per LHW for management and monitoring (not counting direct supervision) was Rs. 1,906 per month. The actual real cost (2003/04 prices) was Rs. 985.

Savings were made in all categories. There remained vacancies at the FPIU and the PPIU in management positions; the project allowance, which was not paid;<sup>69</sup> and repairs and maintenance was low, although apparently this was due to the managers receiving new vehicles. However, POL was also low. The reason provided is that the delay in the delivery of vehicles meant that monitoring activities did not take place. This explains the gap between planned and actual expenditure between 2003 and 2005, but not the gap in 2007/08 (Figure 5.9).

The Programme has gone through a period of expansion. There are around 90,000 members of staff. The management and monitoring expenditure is too low. This is clear, if we consider the level of non-performing LHWs and the lack of implementation of Phase 2 of the PC-1.

<sup>69</sup> Project allowance: while budgeted for, this was not paid due to audit objections. A performance bonus system proposed by the Programme that would have utilised this budget was rejected. In the view of the evaluation team, this would have been difficult to implement fairly.

**Figure 5.10 Planned versus actual expenditure on POL for managers and FPOs, 2003/04–2007/08**



Source: PC-1 and Statements of Expenditure, FPIU.

## 5.10 Phase 2: seed money

The PC-1 had a small budget for research and for building relationships with NGOs. These funds were not utilised. They would have been of benefit to support partnership funding of new initiatives that were planned for Phase 2 of the PC-1 (2005–2008). Phase 2 was not implemented (see Management Review).

## 5.11 Key points

- While the LHWP appears to have purchased all of its main inputs at economical prices, all expenditure items (excluding salary costs and the transportation of medicines) are well below planned amounts;
- The average real unit cost for an LHW between FY 2003/04 and 2007/08 fell by 14 percent;
- However, the LHWP is paying progressively more in real terms for their key input: the LHW. Stipends have increased by 31 percent in real terms between 2003/04 and 2007/08;
- However, the relativity that LHWs had previously with public servants at the bottom of the Basic Pay Scale 6 (BPS 6) has been eroded;
- There is a significant number of LHWs who are not performing to a reasonable level. These represent a cost to the Programme and their communities;
- So that the payments process for additional duties, such as NIDs, is transparent and the Programme retains accountability for this work, there could be a case for payments to come via the payment system of the Programme.
- The prices paid by the LHWP for drugs and contraceptives, on average, are low compared with median international prices;
- Over the five-year study period, there have been insufficient purchases of drugs and medicines to supply the LHWs to the levels determined in the PC-1;
- The survey analysis of dispensing patterns found that LHWs distribute more condoms and pills per month than was forecast in the PC-1;

- The contraceptive budget was underspent in real terms by 25 percent throughout the period. However, there was some contribution by DFID-UK, through the Ministry of Health, for pills, condoms and injectable contraceptives;
- Insufficient vehicles are operational for LHSs to have full-time access to a vehicle, or to replace vehicles that are beyond repair. The process for disposing of vehicles does not work. There are now a large number of non-operational vehicles throughout the country;
- 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;
- Expenditure items (apart from salaries, training, and procurement of other assets) are below planned amounts. The biggest drop in share of expenditure is for drugs and contraceptives. The Quantitative Survey found that actual level of drugs dispensed 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 percent less than budget. This was confirmed by the Quantitative Survey, which found that many LHWs were facing acute shortages of drugs;
- The Programme has underspent in the important, and yet inexpensive, area of management and monitoring. This must impact on LHW levels and quality of service delivery, and on the ability of the Programme to implement its PC-1;
- We know from the evaluation that high-performing and knowledgeable LHWs impact on the health outcomes of their communities. The Programme needs to ensure that the required organisational support and supplies are provided so as to increase the efficiency of the Programme in delivering its services.

## **6 Programme Expansion and Funding**

The most obvious strategy for increasing health impacts and improving value-for-money is for the Programme to take action in respect of the non-performing LHWs. The aim of this chapter is to cost scenarios for future expansion of the Programme. Assumptions are provided with each scenario. A comparison is also made of the cost of a ratio of 1 LHS (with a vehicle) to 25 LHWs, and the cost of 1 LHS (without a vehicle) to 8 LHWs.

### **6.1 Improving value-for-money**

In the first instance, the Programme should aim for greater productivity per LHW: 25 percent of LHWs provide a very low level of service and are low value for money. We know from the Quantitative Survey that knowledgeable and high-performing LHWs have a higher impact on health.

It is not possible to define the absolute level of organisational support that is required to raise the level of service of poor-performing LHWs (who provide only 26 percent of their clients with basic preventive and promotive services) to the level of high-performing LHWs (who provide 78 percent of their clients with the same services). However, the factors that are under the Programme's control that have been shown to improve performance and knowledge are inexpensive; and full implementation of the budget, targeted at dealing with non-performance, should lead to an increase in service delivery at little extra cost (see Management Review).

### **6.2 Retaining the cost structure of the PC-1**

To ensure efficient service delivery by LHWs, the Programme needs to budget on the basis of an appropriate unit cost and to spend accordingly. Our conclusion is that the cost structure of the PC-1 (2003–08), if implemented, would have resulted in LHWs that had the resources required to provide services, adequate supervision levels, and stronger management and monitoring to allow for a higher level of service delivery and the implementation of Phase 2 of the PC-1. The scenarios that follow utilise the current cost structure in the PC-1, 2003–08.

### **6.3 Scenarios for expansion of the LHWP**

A summary of the budget requirements for three scenarios, each with a different target number for LHW recruitment (100,000, 150,000 and 200,000), is provided in Table 6.1, with detail in Annex G. An inflation rate of 7.5 percent was used, as this was the rate used for the PC-1 (2003–08).

#### **6.3.1 Scenario 1, based on the costs in the PC-1 (2003–08)**

The first scenario uses the cost structure from the current PC-1, converting the costs to 2007/08 prices. This gave a planned unit cost per LHW of Rs. 58,965, given that the average number of LHWs planned for recruitment funded by this PC-1 was 88,180.

Scenario 1 shows 100,000 LHWs costing the Programme Rs. 39,577 million over the five years from 2009/10 to 2014/15. The costs increase proportionally as the numbers increase. This is realistic, given that there are few fixed costs. In fact, as the Programme expands, given the difficulties of working in more remote areas, the costs per LHW would increase.

### 6.3.2 Scenario 2, based on the costs in the PC-1 (2003–08), given the increase in LHW salaries

Scenario 1 is unrealistic, however, given that the LHW salary is unlikely to reduce to the level originally budgeted for in 2003. For this reason, the Scenario 2 is based on the salary that the LHW was receiving as at FY 2007/08. The unit cost of the LHW in 2007/08 prices is now Rs. 68,215 per year. This increases the budget needed for 100,000 LHWs for the period 2009/10–2014/15 to Rs. 45,785.88 million.

### 6.3.3 Scenario 3

This is the most realistic scenario, as it takes into account the increases in drivers (as of January 2008) and LHS salaries for the FY 2007/08, as well as the LHW stipends. The unit cost per LHW rises to Rs. 68,764 per annum. The cost of funding 100,000 LHWs for five years is Rs. 49,462.50 million.

**Table 6.1 Budget scenarios for the years 2009/10–2013/14 for varying numbers of LHWs, based on the PC-1 (2003–08) cost structure**

LHWs		100,000	150,000	200,000
1	PC-1 cost structure	39,577.15	59,365.72	79,154.29
2	PC-1 cost structure with 2007/08 LHW salary	45,785.88	68,678.83	91,571.77
3	PC-1 cost structure with 2007/08 LHS and driver salary	49,462.50	74,193.74	98,924.99

Source: Annex G.

## 6.4 Ratio of LHSs to LHWs

The Quantitative Survey has found that the ratio of LHSs to LHWs does not contribute to the performance of the LHW. If the LHS is making a monthly visit, using her checklist, and visiting the LHW's client households (with and without the LHW), this contributes significantly to the performance of the LHW.

However, there is a proposal to reduce the ratio of LHSs to LHWs to 1:8. This proposal has been made by the National Commission for Human Development.

This analysis compares the costs of having 1 supervisor (with a vehicle) for 25 LHWs with having 1 LHS (without a vehicle) for 8 LHWs.

The analysis is based on a number of assumptions. First, it is for the deployment of 100,000 LHWs. An LHS salary is based on that of 2007/08, and that of a driver from their rate of pay as at January 2008. The vehicles have been provided at their depreciated value (with a ten-year life) from the vehicles currently owned by the Programme. The repair budget is estimated based on 5 percent of the purchase price. POL is estimated based on an allowance of 70 litres per LHS (the Programme's current standard) and at a high price of Rs. 80 per litre (but to include oil and lubrication).

An additional 8,500 LHSs would be needed to achieve a ratio of 1:8. The assumption here is that there would be a fixed travel allowance at the rate of Rs. 70 per field day, at 24 days per month.

In this analysis, the ratio of 1:8 is more expensive at Rs. 942 million per annum as opposed to Rs. 909.10 million.

Additional costs, if the ratio of LHSs to LHWs were reduced to 1:8, would be:

- additional management, training and supply costs, if the number of LHSs were to be increased from 4,000 to 12,500. Already the districts with larger numbers of LHWs are not performing as effectively, which can, in part, be attributed to the ratio of management staff to LHSs at the district level. Increasing LHSs without increasing managers runs the risk of decreasing rather than improving LHW performance;
- the cost of alternative transportation of drugs and medicines from the district to the health facility, where LHS vehicles are used, also needs to be considered; and
- an additional uncosted benefit of the vehicles is the use of LHS vehicles on NIDs for the Ministry of Health's EPI Programme.

The ratio of 1 LHS (with a vehicle) to 25 LHWs does carry risks associated with poor fleet management; e.g. misuse of vehicles damaging the reputation of the Programme and potential loss of government assets through stealing.

Smaller urban-based districts might, if given the choice, choose Scenario 2. Where populations of LHWs are close together, the LHS might be able to supervise eight LHWs easily without a vehicle.

**Table 6.2 Comparison of costs of LHS with a 1:25 ratio and vehicle versus a 1:8 ratio and no vehicle**

	Total Rs.million
<b>SCENARIO 1:</b>	
<b>Direct supervision by LHS with a ratio of 1 LHS (with a vehicle) to 25 LHWs</b>	
LHS salaries	220.8
Driver salaries	201.6
POL	268.8
Repairs of vehicles	72.65
Vehicle provision	145.25
	909.10
<b>Assumptions</b>	
4,000 LHSs at Rs. 4,600 per month (Rs. 55,200 per annum)	
4,000 drivers as at January 2008, Rs. 4,200 per month (Rs. 50,400 per annum)	
4,000 vehicles, using the depreciated rate per vehicle for 2007/08 of Rs. 36,313	
4,000 POL, 70 litres per week at Rs. 80 per litre, including oil and lubrication	
4,000 repairs at 5% of the value of the purchase price of the vehicle per annum	
<b>SCENARIO 2:</b>	
<b>Direct supervision by LHS with a ratio of 1 LHS (without a vehicle) to 8 LHWs</b>	
LHS salaries	690
Fixed LHS travel allowance	252
	942
12,500 LHSs at Rs. 4600 per month (Rs. 55,200 per annum)	

	Total Rs.million
No drivers	
No POL	
No repairs	
Fixed TA at Rs. 70 per field day, at 24 days per month (Rs. 20,160 per annum)	

Source: Statements of Expenditure from the FPIU; and author's calculations.

## 6.5 Key points

- To ensure efficient service delivery by the LHW, the Programme needs to budget on the basis of an appropriate unit cost and to spend accordingly;
- The greatest increase in value for money would be for the Programme to deal with the 25 percent of LHWs who are not performing. This would also lead to greater achievement of key performance indicators, and impact on health in the communities where LHWs are serving;
- The cost structure of the PC-1 (2003–08) appears appropriate for future budgeting;
- Three scenarios have been explored for expansion in the number of LHWs to be employed. The budget for 100,000 LHWs, based on the previous cost structure of the PC-1, would be nearly Rs. 50,000 million for the period 2009/10–2013/14. The cost for 150,000 LHWs would be around Rs. 75,000 million; and
- The ratio of 1 LHS to 25 LHWs appears less expensive than a ratio of 1 LHS to 8 LHWs; and there would be no guarantee of ongoing performance gains, as the survey has shown no evidence that a smaller ratio impacts on LHW performance. What does impact is the LHS visiting the LHW once each month (more is not necessarily better) and using her checklist, and visiting client households, with and without the LHW.

## **7 Conclusion**

### **7.1 Funding levels were increased**

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 greater resources per LHW, with the objective of increasing 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 (if donor contributions are included).

### **7.2 There was under-spending on non-salary items**

Real expenditure per LHW remained fairly stable, with the exception of a large increase in 2006/07 to pay for salary arrears. However, there was a disproportionate increase in the stipend of the LHWs with regard to other areas of expenditure. The stipends increased in real terms and commanded a significantly larger share of the budget than had been planned. Inflation was also at a higher level than predicted by the Programme. Budgets on other inputs, such as supplies and vehicles, were underspent. The challenge to the cost structure of the PC-1 is the LHW stipends.

There was underspending on non-salary inputs, even with higher than predicted inflation. Non-salary inputs (such as drugs and contraceptives, transportation and training) need to be provided if the Programme is to increase the quality of its service delivery. The LHWs need to be well supplied, supervised and monitored. Management and monitoring expenditure needs to be targeted to ensure that Programme standards are complied with (including the quality of training) and that there is a sufficient level of supervision for LHSs, especially in districts operating a large programme (e.g. over 1,000 LHWs). LHSs need to be mobile, whether with operational vehicles with drivers and POL, or by having sufficient travel allowance and access to other forms of transport.

### **7.3 Budgets to support Phase 2 were not spent**

The budget had provision for initiating developments in Phase 2 through one budget for research and another budget for relationships with NGOs. These budgets were not utilised. The Programme failed to move into Phase 2 during the period of this PC-1 (see Management Review, August 2009). Reportedly, it was difficult for the Programme to gain approval to use the seed money in the budget.

### **7.4 Cost structure of the PC-1 (2003–08)**

The cost structure of the PC-1 was generally adhered to, with the exception of LHW stipends. The assumption here is that the cost structure of the PC-1 (2003–08), if implemented, would have resulted in LHWs that had the resources required to provide services, adequate supervision levels, and stronger management and monitoring to allow for higher level of service delivery and the implementation of Phase 2 of the PC-1.



# Annexes



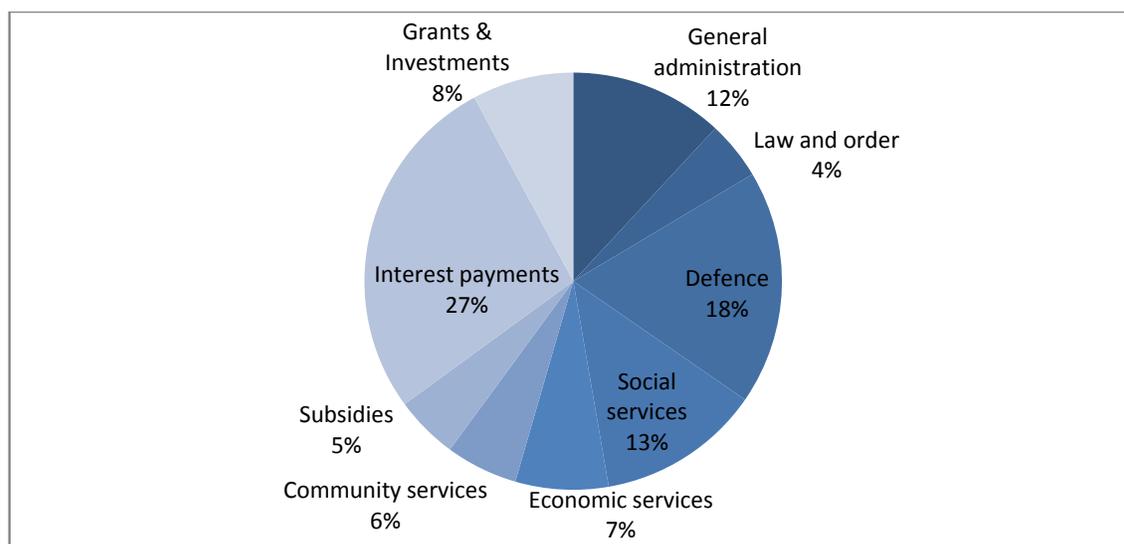
## Annex A Fiscal context

### A.1 Recent fiscal context

Pakistan has been facing considerable fiscal difficulties since the 1980s. Budgetary revenues have risen very slowly as a percentage of gross domestic product (GDP), and the revenue base remains very narrow. However, despite this, expenditures have consistently outpaced revenue in recent years (see Table A.1), resulting in a fiscal deficit of 7.3 percent of GDP during the financial year ending 30 June 2008 and expectations that it could reach greater than 10 percent by June 2009.<sup>70</sup>

The effect is that the amount of funding available for health spending on programmes such as the LHWP has been heavily constrained for some considerable time, largely as a result of major spending programmes on defence and debt servicing.

**Figure A.1 Composition of total expenditure on average between 2000/01 and 2005/06 (federal and provincial, recurrent and development)<sup>71</sup>**



Source: Consolidated budgetary data provided by the World Bank.

Clearly, the LHWP is being financed from a heavily constrained budget. Given the inherent difficulties in reducing interest and defence expenditure, it is clear that there are many critical demands on the remaining resources. As with all government expenditure, it is therefore essential to ensure that the Programme is cost-effective and delivers value for money.

<sup>70</sup> *The Economist*, 24–31 October 2008.

<sup>71</sup> Consolidated budgetary data provided by World Bank.

**Table A.1 Pakistan: summary of consolidated federal and provincial budgetary allocations, 2000/01–2007/08 as a proportion of GDP**

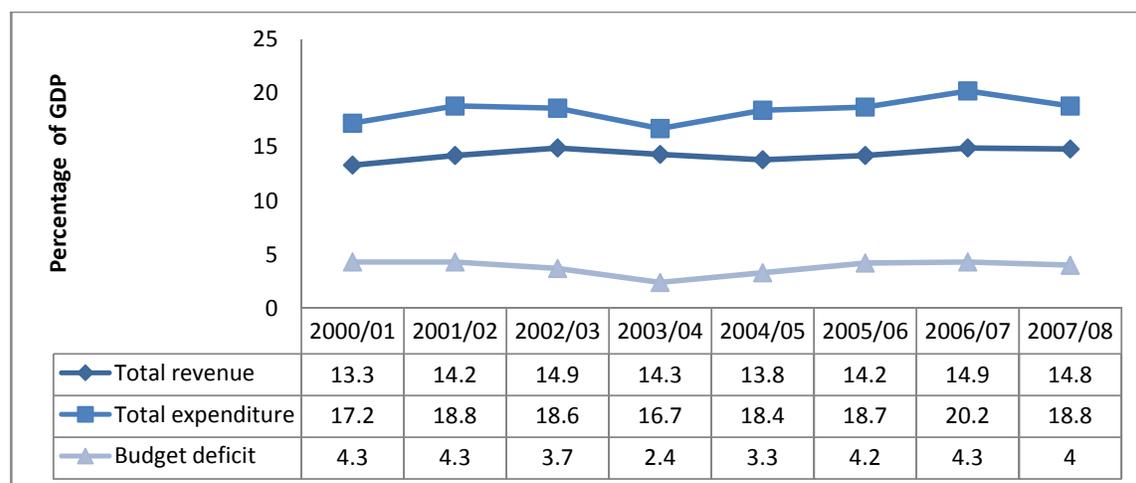
	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08 (forecast)
Total revenue	13.3	14.2	14.9	14.3	13.8	14.2	14.9	14.8
Total expenditure	17.2	18.8	18.6	16.7	18.4	18.7	20.2	18.8
Recurrent	15.5	15.9	16.3	13.5	14.5	14.4	15.8	13.8
Development	1.7	2.9	2.3	3.2	3.9	4.3	4.4	5.0
Budget deficit	4.3	4.3	3.7	2.4	3.3	4.2	4.3	4.0

Notes: Budget deficit in FYs 2005, 2006 and 2007 contains statistical discrepancies (both positive and negative); and FYs 2006 and 2007 include earthquake-related expenditure worth 0.8 percent and 0.5 percent of GDP, respectively.

Source: Economic Survey 2007/08, GoP, Finance Division.

In recent years, the increase in expenditure has been matched by increasing revenues, albeit by a very small margin as shown in Table A.1, mainly from a large increase in federal non-tax revenues.<sup>72</sup>

**Figure A.2 Total budgetary allocations (consolidated federal and provincial) as a proportion of GDP**



Source: Table A1.

## A.2 Structure of public expenditure

Pakistan's public sector consists of four main types of entity:

- **Federal government**, which directly administers three jurisdictions: Federally Administered Tribal Areas (FATA), Federally Administered Northern Areas (FANA) and Islamabad Capital Territory (ICT). The federal budget covers the expenditures of

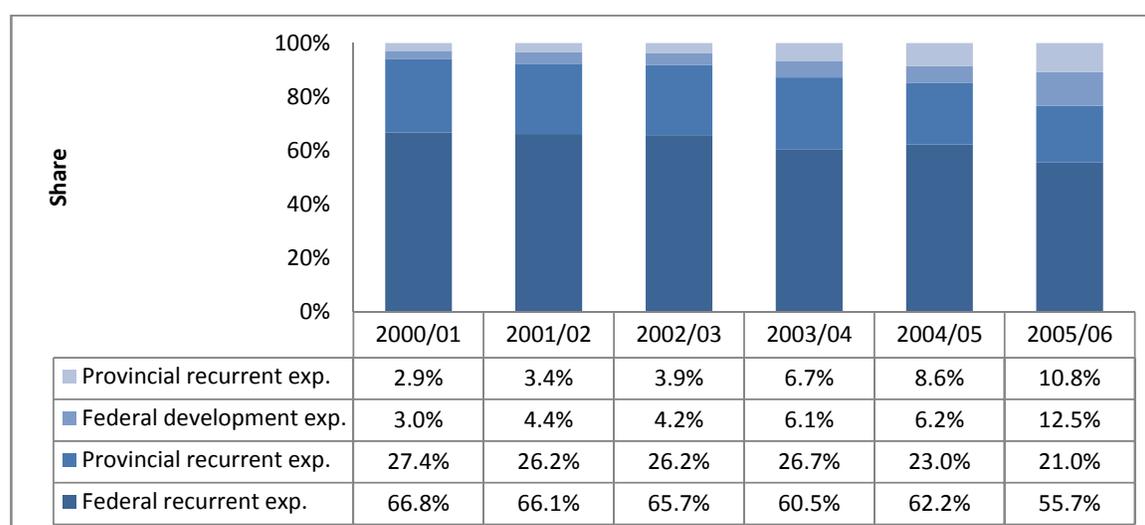
<sup>72</sup> Economic Survey 2006/07, GoP, Finance Division, ch. 4 – Fiscal Development, table 4.2, 'Summary of Public Finance (Consolidated Federal and Provincial Governments)'.

these jurisdictions, together with those of Azad Jammu and Kashmir (AJK), which have quasi-independent status;

- **Four provincial governments** (Punjab, Sindh, NWFP and Balochistan), which account for most of the government administrative apparatus and employment;
- **Local government bodies**, which have limited autonomy and whose functions have increasingly been centralised under provincial control; and
- **Public enterprises**, which cover a broad range of activities and dominate significant parts of the energy, infrastructure, and finance sectors. For the most part, public enterprises are not reflected in budgetary statistics.

Despite the recent growth in development expenditure over recurrent spending, as shown in Table A.2, the division of total spending at the federal and provincial levels did not alter much during the period 2000/01–2005/06 and remains split at 30:70 (federal:provincial).

**Figure A.3 Changes in spending patterns (recurrent to development) between 2000/01 and 2005/06**



Source: Table A.2.

2.2 Pakistan: summary of consolidated federal and provincial budgetary allocations, 2000/01–2005/06 (Rs. million) and as a percentage of total expenditures

	2000/01		2001/02		2002/03		2003/04		2004/05		2005/06
Total expenditures	736,451	(%)	812,731	(%)	919,889	(%)	962,188	(%)	1,131,268	(%)	1,466,794
Total percentage											
Capital expenditures	513,476	69.7	572,696	70.5	643,256	69.9	640,989	66.6	773,723	68.4	1,000,016
- recurrent	222,975	30.3	240,034	29.5	276,633	30.1	321,199	33.4	357,545	31.6	466,778
- non-recurrent	49,1672	66.8	537,258	66.1	604,487	65.7	582,280	60.5	703,803	62.2	816,284
Development expenditures	201,437	27.4	212,760	26.2	240,943	26.2	256,719	26.7	260,756	23.0	308,508
- recurrent	21,804	3.0	35,438	4.4	38,769	4.2	58,709	6.1	69,920	6.2	183,732
- non-recurrent	21,538	2.9	27,275	3.4	35,690	3.9	64,481	6.7	96,789	8.6	158,270

Budget deficit in FYs 2005, 2006 and 2007 contains statistical discrepancies (both positive and negative); and FYs 2006 and 2007 include earthquake-related expenditures worth 0.8 percent and 0.5 percent of GDP, respectively.

Source: Economic Survey 2007/08, GoP, Finance Division.

### A.3 Consolidated revenue

Revenue sharing between federal and provincial governments occurs in accordance with the National Finance Commission (NFC) Awards. The current award introduced tax sharing of all major taxes at a uniform rate, and allocates a set percentage of the pool of tax receipts to the provinces on the basis of their respective populations. Passed in 1997, the current award places much greater emphasis on provincial revenue mobilisation than was previously the case. The provinces are also expected to finance the rupee components of their development expenditure from their own revenues. A small fiscal gap is incorporated in the federal/provincial revenue sharing formula of the new award as an inducement for the provinces to raise more revenue and to economise on their expenditure.

The changes have had a significant impact on provincial resources, compounded by several developments since the award was announced:

- The 1996/97 federal revenue out-turn (on which the calculation of the revenue sharing formula was based) was significantly worse than estimated in the award, lowering the base for transfers to the provinces;
- Major tax reductions since the award have reduced federal revenues and corresponding transfers;
- Procedural changes in 1997/98 have further complicated provincial cash management. The federal government is now transferring a stipulated share of actual receipts each month rather than one twelfth of the budgeted amount, as was previously the case. As a result, provincial overdrafts have increased, development programmes have been affected, non-waged operations and maintenance has 'virtually dried up, and bills are not being paid. There is now considerable fiscal squeeze on the provinces. At the same time, there is an urgent need to restore non-waged O&M expenditure in key sectors.

#### A.3.1 Consolidated expenditure

Total expenditures have maintained a high nominal rate of growth, increasing by 75 percent over the six years from 2000/01 to 2005/06.<sup>73</sup> During this period, there were two key factors that limited the extent of how much these budgetary increases were passed on to citizens: inflation was recorded at around 6.5 percent per annum; and population growth also remained high, increasing by 2 percent per annum. The effect of this was that there was an overall increase in real per capita expenditure of around 34 percent during this period, as compared with a per capita nominal increase of 65 percent.

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<sup>73</sup> Economic Survey 2006/07, GoP, Finance Division, Statistical Supplement of Economic Survey, Table 4.2.

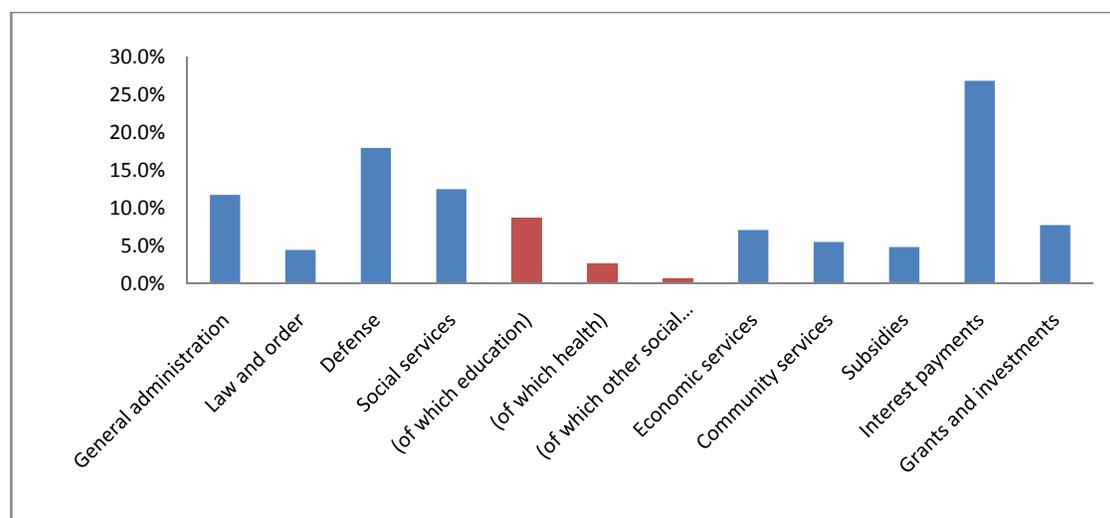
**Table A.3 Real expenditure per capita**

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	Growth 2000/06
Total expenditure (Rs. million)	736,451	812,731	919,889	962,188	1,131,268	1,466,794	75.4
Real total expenditure 2000/01 (Rs. million)	736,451	783,960	857,797	850,286	882,615	1,002,701	32.4
Per capita expenditure (Rs.)	5,386	5,816	6439	6,590	7,588	9,749	64.7
Real per capita expenditure 2000/01 (Rs.)	5,386	5,617	6032	5,904	6,220	7,406	34.0

Source: Table A.2

Expenditure has typically been focused on funding large interest payments, defence and general administration, with the sums available for social spending (comprising health, education and other social services) consistently put under pressure. During the period 2000/01–2005/06, 44 percent of expenditure was on defence and interest payments, with education receiving 8.8 percent, health 2.7 percent, and ‘other social services’ 0.7 percent.

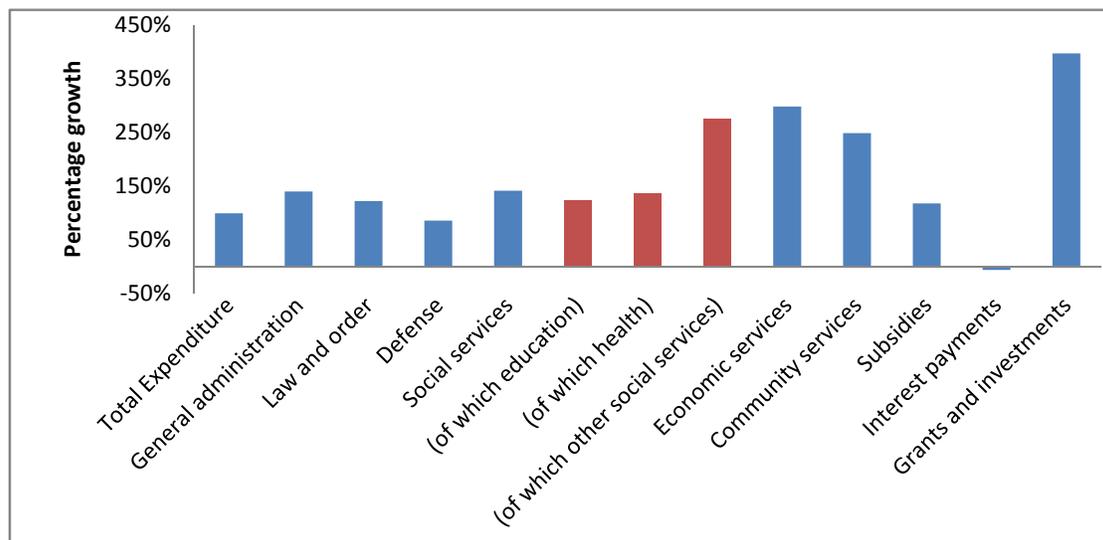
**Figure A.4 Average total growth in expenditures by function between 2000/01 and 2005/06**



Source: Consolidated budgetary data provided by the World Bank.

As noted, the composition of this spending has traditionally been heavily focused on defence and interest payments, although in the years between 2000/01 and 2005/06 these areas have not seen as large an increase in expenditure as have other areas (such as ‘grants and investments’, which have increased almost fourfold, and ‘economic services’, which have increased threefold).

**Figure A.5 Percentage changes in functional expenditure between 2000/01 and 2005/06**



Source: Consolidated budgetary data provided by the World Bank.

Within the health sector, the four provincial governments have had varying fortunes in the receipt of recurrent and development funding. During the period 2004/05–2006/07, Sindh received the highest percentage increase in the recurrent health budget, with the Punjab receiving the highest overall budgetary receipts (due to its large population).

**Table A.4 Pakistan’s health expenditure (federal and provincial), 1993/94–2000/01 (Rs. million)**

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Total health expenditure	24,280	25,410	28,814	32,805	38,000	39,203	53,166	61,127
Federal	–	–	3,309	4372	6,044	11,392	14,054	16,479
Provincial	–	–	25,505	28,433	31,956	27,811	39,112	44,648
Health expenditure growth (%)	0	4.7	13.4	13.9	15.8	3.2	35.6	15.0
Share of total								
Total health expenditure (%)	100	100	100	100	100	100	100	100
Federal (%)	0	0	11.5	13.3	15.9	29.1	26.4	27.0
Provincial (%)	0	0	88.5	86.7	84.1	70.9	73.6	73.0
Recurrent (%)	75.5	73.7	77.1	74.1	71.1	61.2	73.9	71.9
Federal (%)	–	–	–	–	–	13.2	11.0	9.4
Provincial (%)	–	–	–	–	–	48.0	62.9	62.5
Development (%)	24.5	26.3	22.9	25.9	28.9	40.8	26.1	28.1
Federal (%)	–	–	–	–	–	15.9	15.2	17.5
Provincial (%)	–	–	–	–	–	25.0	10.9	10.5
Memo items								
Inflation (CPI)	–	3.54	3.10	4.57	9.28	7.92	7.77	12.00
Real health expenditure/capita 2000/01 (Rs.)	178	175	188	199	199	178	200	160
LHWP % share of federal health expenditure				55.5	48.8	33.9	35.2	28

Notes: 2005/06 revised numbers following earthquake in 2005

Source: GoP, Finance Division, Economic Survey 2007/08; and PRSP Budgetary Expenditure for 2005–2008. LHWP budget data from National Health Facility Review 2007.

## Annex B Planned Expenditure and Unit Costs in the PC-1

### B.1 Classification for unit costing

A unit of service provided by the Programme can be quantified as the cost of one LHW. Whereas the Quantitative Survey Report and the Management and Systems Review focus on the productivity of the LHW and the impact of her services, this analysis is focused on the marginal cost of providing one additional LHW (i.e. one additional unit of service). This information can be used for forecasting the expansion of the Programme and for supporting efficiency gains through comparing changes in the cost of inputs, through time.

The analysis provided here identifies the costs of activities that are important inputs to the functioning of the LHW in accordance with the MBTF framework. This information, together with information on service delivery from the Quantitative Survey, should support the Programme in its budgeting decisions.

The core activities and inputs that are important in the unit costing are:

1. LHW stipends;
2. Skill development acquisition and maintenance of professional knowledge and skills for both the LHW and her supervisor:
  - core training (LHW stipend for three months);
  - training allowances for trainers;
  - refresher training (training workshops/domestic training);
  - stipend for attending training;
  - additional costs of training of trainers;
  - printed resources (e.g. LHW manual);
3. Direct supervision of the LHW, comprising:
  - the stipend of the LHS and Accounts Supervisors;
  - the mobility of the LHS (to enable supervision of LHWs that are located in the community)
    - drivers' salaries;
    - fixed travelling allowance;
    - POL;
    - repair and maintenance of LHS vehicles;
4. Vehicle procurement, including cost of vehicles (with a ten-year economic life);<sup>74</sup>
5. Supplies for the LHW that are essential for her service delivery:
  - Drugs and contraceptives, and functional equipment;
  - Transportation charges;<sup>75</sup>
6. Management and monitoring:
  - Salaries and allowances;

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<sup>74</sup> Separate line item in the MTBF.

<sup>75</sup> Separate line item in the MTBF: Transportation of medicines and other items. The main goods transported are the medicines.

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- Honorarium;
  - Allowances;
    - Project allowance;
    - Travel and daily allowances;
      - Repairs of vehicles (FPIUs, PPIUs, FPOs and DCs);
      - POL (FPIU, PPIU, FPO, DC);
      - Pension contribution of those on deputation;
7. Administration and operating expenses:
- Collaboration with NGOs;<sup>76</sup>
  - Research and pilot studies;<sup>77</sup>
  - Evaluations/HMIS/computer equipment;<sup>78</sup>
  - Procurement of other assets;<sup>79</sup>
  - Maintenance of assets other than vehicles;<sup>80</sup>
  - Rent of warehouses;<sup>81</sup>
    - Entertainment charges;<sup>82</sup>
    - Contingencies/operating expenses;<sup>83</sup>
8. Media campaign/Health Education campaign.

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<sup>76</sup> Separate line item in the MTBF.

<sup>77</sup> Separate line item in the MTBF.

<sup>78</sup> Separate line item in the MTBF.

<sup>79</sup> Needs to be treated as capital?

<sup>80</sup> Separate line item in the MTBF.

<sup>81</sup> In the MTBF, this is aggregated with the rental of offices. The warehouses are the more expensive item; it is not possible to disaggregate them here and so they have been allocated to supplies for LHWS.

<sup>82</sup> Separate line item in the MTBF.

<sup>83</sup> Separate line item in the MTBF.

**Table B.1 Personnel employment status with the LHWP**

<b>Job title</b>	<b>Main role</b>	<b>Accountable to</b>	<b>Payment from Programme funds</b>	<b>Employment status</b>
Lady Health Worker	To deliver services	Managed by the LHS and DPIU; is recruited by the FLCF and can be fired by DPIU.	Full salary and training allowance (basic training and for refresher)	1-year contract
Driver	To drive the LHS	DC/DHO	Full salary	1-year contract
Lady Health Supervisor	Performance management of LHW	DC-DPIU	Full salary and refresher training allowance	1-year contract
Accounts Supervisors (including logistics)	Accounts, logistics, clerical work	District Coordinator	Full salary	1-year contract
Assistant District Coordinator (female) <sup>84</sup>	Collects and collates diary data from LHS Monitoring/supervision Field visits	DC/DHO	Salary paid by the Provincial Department of Health	Public servant on deputation
District Coordinator	District Programme Manager	DHO/PPIU	Salary paid by the Provincial Department of Health	Public servant on deputation
EDO-H	Chairman of the DPIU	Provincial DoH – DG or Divisional Director of Health Services (this position no longer exists in NWFP)	Salary paid by the Provincial Department of Health	Public servant
Field Programme Officer (20)	Inspection of district activities	PPIU	UNICEF, and the Programme	1-year contract or on deputation
Health Education Officer	Health Education activities	PPIU	Full salary	1-year contract or on deputation
Management, Information Systems	Production of collated HMIS reports and Information analysis	Provincial Coordinator	Full salary	1-year contract
Logistics Officer	Stores and distribution	Provincial Coordinator	Full salary	1-year contract

<sup>84</sup> Female managers are particularly needed in places such as Balochistan, where men cannot visit a registered home unless accompanied by a women.

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<b>Job title</b>	<b>Main role</b>	<b>Accountable to</b>	<b>Payment from Programme funds</b>	<b>Employment status</b>
Finance Officer	Prepare and monitor budget, generate financial accounts for PPIU and consolidation of district accounts	Provincial Coordinator	Full salary	Deputation from Auditor General's office/Controller General of Accounts office.
Assistant Provincial Coordinator	Monitoring and Programme Management	Provincial Coordinator	Full salary	Can be on contract or public servant on deputation
Provincial Coordinator	Programme manager at the Provincial/Regional level	DG Health Accountable to FPIU for Programme responsibilities	Full salary	Public servant
Project Monitoring Specialist (4)	Monitoring systems, DPIU to community level	FPIU/UNFPA	UNFPA (withdrawn in the financial year 2000/01)	1-year contract
Federal Monitoring and Training Unit (4 officers)	Analyse monitoring and training reports. Conduct field visits	FPIU	UNICEF	1-year contract
FPIU Accountant	Duties assigned by Finance Officer	Finance Officer-FPIU	Full salary	Public servant on deputation/contract
FPIU Deputy Coordinators (2)	Programme Management	National Programme Manager	Full salary	Public servant on deputation/contract
FPIU, National Coordinator	Programme Management	DG Ministry of Health/Secretary of Health	Full salary	On contract
Federal-level Trainers	Training	FPIU	Full salary	Public servant on deputation or contract
Provincial-level Trainers, Doctors/ Paramedics	Training	PPIU	Salary from Provincial Department of Health	Public servant
District-level Trainers, Doctors/ Paramedics	Training FLCF trainers	DPIU for training	20% allowance while training, but not if already working for DPIU	Public servant

<b>Job title</b>	<b>Main role</b>	<b>Accountable to</b>	<b>Payment from Programme funds</b>	<b>Employment status</b>
FLCF-level Trainers, Doctors, LHV, Technician	Train LHWs	DPIU for training	20% allowance while training	Public servant

## Notes:

- (1) Where the LHW is filling a vacated position, the LHW stipend for the first three months' basic training will come from the LHW stipends budget. This is referred to in the PC-1 as a note to the budget forecast. For the planned replacement of 5,000 LHWs per annum (in accordance with the PC-1), the stipend for the first three months' training is estimated at half of that budgeted in the PC-1 for 10,000 new LHWs; i.e. Rs. 37.5 million/2;
- (2) All vehicles (their repair and maintenance, and POL) were allocated to Direct Supervision and Inspection, as that is their purpose. The fixed travelling allowance (FTA) for LHSs was budgeted at 0.00 in the PC-1, as policy was for all LHSs to have full-time access to a vehicle and that, if this were not possible, the FTA would be paid out of the budget for Purchase of Vehicles. The budget forecast that was produced when the account codes were changed included an FTA of Rs. 128.47 million. This did not derive from the Purchase of Vehicles budget, which remained at Rs. 1274.559 million;
- (3) This includes FPOs and the Accounts Supervisors in the districts;
- (4) LHS salaries for the first three months were left aggregated as a part of the LHS stipend, rather than allocated to Professional Knowledge and Skills, as it is difficult to ascertain recruitment of LHSs and the amount is small.
- (5) The PC-1 placed a ceiling of Rs. 20,000 to Rs. 45,000 per month for rental of an office building for a PPIU and Rs. 25,000 to Rs. 75,000 for warehouses for storage. If this can be disaggregated out with the SoEs from the provinces, then we should do it. Otherwise, it is allocated on the basis of a ratio of 70 percent for warehousing and 30 percent for office space.
- (6) This is using the SoE from the FPIU.

**Table B.2 Programme budgetary estimates in accordance with the PC-1 (Rs. million) 2003/04–2007/08, including the funding from RHW and WHP**

	2003/04	2004/05	2005/06	2006/07	2007/08	Total
<b>(A)</b>						
<b>Establishment charges</b>						
Salaries/over time/medical allowance/honorarium, pension contribution of PIU staff and residential rent	77.06	82.84	89.06	95.74	102.92	447.61
Salaries of LHWs	1,776.00	1,909.20	2,052.39	2,206.32	2,371.79	10,315.70
Salaries of Supervisors	142.56	153.25	164.75	177.10	190.38	828.04
Project allowance for Supervisors	22.22	23.89	25.68	27.61	29.68	129.07
Fix travel allowance to Supervisors						
Salary of drivers (with Supervisors, FPO and in PIUs)	123.28	132.53	142.47	153.15	164.64	716.08
<i>Total establishment charges</i>	<i>2,141.13</i>	<i>2,301.71</i>	<i>2,474.34</i>	<i>2,659.92</i>	<i>2,859.41</i>	<i>12,436.51</i>
<b>(B)</b>						
<b>Purchase of durable goods</b>						
Purchase of vehicles	808.24	117.98		348.35	–	1,274.56
Purchase of furniture, fixtures and other stores	20.00				20.00	40.00
<i>Total of purchase of durable good</i>	<i>828.24</i>	<i>117.98</i>		<i>348.35</i>	<i>20.00</i>	<i>1,314.56</i>
<b>(C)</b>						
<b>Repair of durable goods</b>						
Repair/maintenance of vehicles	80.83	86.89	93.41	100.42	107.95	469.50
Repair of equipment and other stores	5.00	5.00	5.00	5.00	5.00	25.00
<i>Total repair of durable goods</i>	<i>85.83</i>	<i>91.89</i>	<i>98.41</i>	<i>105.42</i>	<i>112.95</i>	<i>494.50</i>

	2003/04	2004/05	2005/06	2006/07	2007/08	Total
<b>(D) Commodities and services</b>						
Travel allowance/daily allowance for all staff	25.69	25.69	25.69	25.69	25.69	128.47
Transportation charges (PPIUs and DPIUs)	8.09	8.09	8.09	8.09	8.09	40.47
POL	134.44	144.52	155.36	167.01	179.54	780.86
Printing (training and other materials)	56.59	21.89	55.68	4.70	64.34	203.20
Rent of official building/warehouse	9.18	9.87	10.61	11.40	12.26	53.32
Evaluation and HMIS	3.00	3.00	8.00	3.00	10.00	27.00
Training (10,000 LHWs 3 months' stipend)	37.50					37.50
Media campaign	80.00	86.00	92.45	99.38	106.84	464.67
Purchase of medicines, Contraceptives and non-drug items	1,048.38	1,271.55	1,016.86	1,038.79	1,085.84	5,461.42
<i>Total commodities and services</i>	<i>1,402.88</i>	<i>1,570.62</i>	<i>1,372.74</i>	<i>1,358.07</i>	<i>1,492.60</i>	<i>7,196.91</i>
<b>(E) Research and pilot studies</b>	5.00	5.00	5.00	5.00	5.00	25.00
<b>(F) Collaboration with NGOs</b>	10.00	10.00	10.00	10.00	10.00	50.00
<b>(G) Entertainment charges</b>	1.00	1.00	1.00	1.00	1.00	5.00
<b>(H) Workshops (material and training costs)</b>	154.08		165.64		178.06	497.78
<i>Subtotal of (E), (F), (G) and (H)</i>	<i>170.08</i>	<i>16.00</i>	<i>181.64</i>	<i>16.00</i>	<i>194.06</i>	<i>577.78</i>
<i>Total</i>	<i>4,628.156</i>	<i>40,96.195</i>	<i>4,127.132</i>	<i>4,487.754</i>	<i>4,679.018</i>	<i>22,020.255</i>
Contingencies @ 2% (to cater for expenditure on postage, telephone, utilities, stationery, etc.)	92.553	81.964	82.543	89.755	93.580	440.405
<b>Grand total</b>	<b>4,720.719</b>	<b>4,180.159</b>	<b>4,209.675</b>	<b>4,577.509</b>	<b>4,772.599</b>	<b>22,460.660</b>

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

**Table B.3 PC-1 assumptions, 2003–08**

<b>Category</b>	<b>PC-1 assumptions</b>
LHW recruitment schedule to attain 87,600 under this PC-1	20,000 LHWs – 2003/04 12,800 LHWs – 2004/05 Target of training 100,000 LHWs will be met by the end of 2005.
The number of LHWs working in 2002/03	70,000
Recruitment of LHWs due to attrition	5,000 LHWs – 2003/04 5,000 LHWs – 2004/05 5,000 LHWs – 2005/06 5,000 LHWs – 2006/07 5,000 LHWs – 2007/08
Recruitment of LHS due to attrition (1:25)	200 LHSs – 2003/04 200 LHSs – 2004/05 200 LHSs – 2005/06 200 LHSs – 2006/07 200 LHSs – 2007/08
Ratio of rural to urban LHWs	No new recruitments in urban areas
LHWs to be working by June 2008 (including uptake from WHP (8,000) and RHP (4,400) and 87,600 under this PC-1	100,000
LHSs to be working by June 2008	4,000
LHW salary for first three months' initial training	Rs. 50 per day
LHW salary, Rs. 1,600 per month for 2003/04; then, an increase of Rs. 100 annually to take account of inflation.	Rs. 1,600 – 2003/04 Rs. 1,700 – 2004/05 Rs. 1,800 – 2005/06 Rs. 1,900 – 2006/07 Rs. 2,000 – 2007/08
Ratio of LHS to LHWs	1:25 and 1:20 in hard areas
LHS salary for first three months' initial training	Rs. 3,300 per month
LHS salary, Rs. 3,300 per month for 2003/04; then, an increase of Rs. 200 annually to take account of inflation.	3,300 – 2003/04 3,500 – 2004/05 3,700 – 2005/06

Category	PC-1 assumptions
	3,900 – 2006/07
	4,100– 2007/08
Ratio of drivers and vehicles to LHS and FPO	1:1
Salary of driver	Rs. 2,400 – 2003/04
	Rs. 2,500 – 2004/05
	Rs. 2,600 – 2005/06
	Rs. 2,700 – 2006/07
	Rs. 2,800 – 2007/08
Daily allowance for drivers of FPOs, for maximum of 20 nights per month. Other drivers at the FPIU, PPIU and DPIU also eligible for daily allowance as per government regulations.	Rs. 100
Allocation of vehicles	1 per supervisor; 1 per FPO; 1 per DPIU; and 203 each for the PPIU and FPIU
Vehicle type	Vehicles that are older than ten years will be replaced with new vehicles.
800cc pick-ups for LHS	
800cc vans for DPIU	
4x4 jeeps for PPIU, FPIU and FPOs	
For certain difficult areas, jeeps will be given to LHSs and DPIUs.	
POL to LHS, on average	70 litres per month
LHSs without vehicles to be paid a fixed travel allowance per field visit day	Rs. 70
Account Supervisors	1 for each district; and 2 for districts with more than 800 LHWs.  Salary package similar to LHS
Field Programme Officers, on contract	1 per 2–3 districts, recruited by the PPIU  12 recruited by the FPIU
LHS visits to LHWs	At least twice per month
Value per month of LHWs drugs and medicines	Rs. 1,265
LHW kit (1 per LHW)	Rs. 1,605

**LHWP – Financial and Economic Analysis**

<b>Category</b>	<b>PC-1 assumptions</b>
Purchase of drugs, contraceptives, vehicles and training materials	To be purchased by the FPIU
Contraceptives procured through UNFPA (foreign exchange required)	N/A
LHW training	Three months full-time in the classroom, followed by twelve months at one week per month by a three-person team at each participating FLCF. Training team at the FLCF to be paid a training allowance equal to 20 percent of their basic salary for the duration of the LHW's training (15 months).
LHS training	Three months in the classroom; three months half in the classroom and half in the field; six months with three weeks in the field and one week in the classroom.
No. of trainers in FLCFs for core training of LHWs	Three trainers, if there are 10 or more LHWs in training. Two trainers if there are less than ten.
No. of trainers	Approximately 9,000 health department staff trained as LHW trainers in alternate years.
Training of trainers for LHWs	Provincial Master Trainers will receive 12 days' training input from federal trainers.  District and FLCF trainers will receive 12 days' training input from Provincial Master Trainers.
Training of trainers for LHSs	15 days' training
Refresher training of LHWs	15 days per year after completion of core training. LHWs to be paid an additional Rs. 50 per day. FLCF trainers to be paid Rs. 200 a day.
Refresher training of LHSs	As and when required
Project allowance to staff on deputation at the federal and provincial PIUs, including DGHS and Provincial Coordinator	20 percent of basic salary
Project allowance to staff at the DPIUs	Up to five officials working for the Programme to be eligible for a 20 percent project allowance
Rental of PPIU offices and warehouses, if government buildings not available.	Office Rs. 20,000–Rs. 45,000 per month
At the district level, government buildings are used for offices and storage of supplies.	Warehouse Rs. 25,000–Rs. 75,00 per month
Telecommunication equipment: fax, telephone, computer and electronic equipment, together with maintenance contracts	-

<b>Category</b>	<b>PC-1 assumptions</b>
Distribution of supplies	From PPIU/central warehouse to districts by contract From districts to FLCFs, by contract and by Programme vehicle
MIS component	Purchase of computers and printers for FPIU, PPIU and DPIUs GIS system to be developed and maintained by the Programme
Media campaign	Budgeted for separately as a line item
Partnership building	Seed money for initiatives
Research activities	Some funds to be made available
Evaluations	To be carried out in 2005 and 2008

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

## Annex C Growth of the LHWP

**Table C.1 Numbers of GoP-funded LHWs under the PC-1, 2002–08**

	Punjab	Sindh	NWFP	Balochistan	AJK	FANA	FATA	ICT	Total
2002	29,496	14,795	9,246	4,443	1,952	1,056	477	299	61,764
2003	30,995	16,198	9,448	3,609	2,256	1,112	716	316	64,650
2004	30,781	16,588	8,927	3,672	2,287	1,130	777	312	64,474
2005	39,600	16,756	11,253	4,892	2,342	1,214	1,016	277	77,350
2006	42,716	18,419	12,157	5,180	2,310	1,214	1,297	232	83,525
2007	43,675	18,448	12,191	5,176	2,413	1,166	1,414	291	84,774
2008	45,045	18,816	12,673	5,231	2,556	1,146	1,377	289	87,133

Source: PSP database at the FPIU.

**Table C.2 Numbers of GoP-funded LHWs, the Women’s Health Project and Reproductive Health Project under the PC-1, 2002–08**

	Punjab	Sindh	NWFP	Balochistan	AJK	FANA	FATA	ICT	Total
2002	29,496	14,795	9,246	4,443	1,952	1,056	477	299	61,764
2003	33,662	17,657	10,889	4,130	2,256	1,112	716	316	70,738
2004	32,789	17,995	10,260	4,140	2,287	1,130	777	312	69,690
2005	39,983	17,393	11,478	4,892	2,342	1,214	1,016	277	78,595
2006	43,492	19,060	12,530	5,485	2,310	1,214	1,297	232	85,620
2007	44,704	19,084	12,566	5,481	2,413	1,166	1,414	291	87,119
2008	45,757	19,446	13,044	5,510	2,556	1,146	1,377	289	89,125

Source: PSP database at the FPIU.

<b>Federal</b>	<b>Items included 1993/94– 1997/98</b>	<b>Items included 1998/99</b>	<b>Items included 1999/2000</b>	<b>Items included 2000/01</b>
Drugs	Purchase of drugs/medicines	Purchase of drugs/medicines	Drugs/medicines (minus LHW kits), release of retention money (medicines)	Purchase of medicines
Vehicles	Purchase of vehicles (including registration fee, transportation, etc.)	Purchase of vehicles	Purchase of vehicles	
Media	Media campaign	Media charges	Media campaign	Media campaign
Training	Training materials	Printing	Printed material; dispatch of training materials; LHW kits	
Evaluation	Evaluation and training supervision			
Administration	Miscellaneous expenditure (contingencies)	All other expenses	All other expenses	All other expenses
Provincial				
LHW stipend	Not possible to disaggregate	LHS salaries	Same as for 1998–99	Same as for 1998–99
Training		Project/training allowance (20%); training stipend LHWs, training materials, durable goods for training, stationery, workshop	Same as for 1998–99	Same as for 1998–99
Supervision		LHSs' salaries, drivers' salaries, POL, repair and maintenance of vehicles, LHS travelling allowance	Same as for 1998–99	Same as for 1998–99

Administration

All other expenses,  
including salaries  
for additional staff.

Same as for 1996–  
99

Same as for 1996–  
99

Note that project  
allowance (20%)  
paid to Programme  
administration staff  
as a deputation  
allowance is  
included in training  
because it is difficult  
to separate training  
allowances from  
this.

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**Annex D.2 Expenditure statement for the LHWP, 2003/04–2007/08, in the format provided in the PC-1 (2003–08)**

	2003/04	2004/05	2005/06	2006/07	2007/08	Total
Employees' salaries/stipends/allowances	1,405.817	1,701.043	2,120.48	3,622.079	3,513.187	12,362.606
Printing, travel and transportation, POL	67.289	203.929	247.813	329.006	332.338	1,180.375
Training of LHWs, LHSs, trainers	0	92.399	97.845	101.891	114.315	406.450
Travelling allowance	12.489	29.59	20.598	25.13	25.694	113.500
Transportation charges	7.826	13.461	20.219	36.112	27.384	105.002
POL charges	46.974	68.479	109.151	165.873	164.945	555.422
Supplies, contraceptives, printed material and health education	685.335	654.999	892.464	872.593	674.842	3,780.233
Printing of training materials/other	17.218	39.425	55.801	40.596	5.45	158.500
Health education/publicity	56.985	72.549	61.313	60.446	73.213	324.506
Drugs and medicines	611.132	543.025	775.35	771.551	596.179	3,297.233
Employee retirements, benefits and entertainments	1.508	1.489	2.392	1.947	2.772	10.108
Equipment, non-drug items, computers, other equipment	208.548	291.645	511.946	10.72	3.414	1,026.275
Computer/MIS equipment	0	3.915	6.079	2.546	2.795	15.335
Medical store – non-drug items	0	0	0	0	0	0
Replacement of vehicles	174.36	280.878	465.06	0	0	920.304
Equipment, machinery, furniture, fixtures	14.053	6.852	26.809	2.157	0.619	50.491
Other stores	20.135	0	13.998	6.017	0	40.150
Repairs and maintenance of vehicles and other items	29.03	36.786	41.987	48.874	52.441	209.121
Research and innovations	0	0	0	0	0	0
Operational research	0	0	0	0	0	0
Innovations: (1)Integration with EPI, TB Dots, Malaria and MNCH; (2) Health Insurance; (3) Condensed education	0	0	0	0	0	0
Contingencies and other operational expenses	29.491	61.224	45.1	60.515	53.635	249.965
<b>Grand total</b>	<b>2,427.018</b>	<b>2,951.115</b>	<b>3,862.182</b>	<b>4,945.734</b>	<b>4,632.629</b>	<b>18,818.609</b>

Source: Finance section of the LHWP.

**Table D.3 Expenditure statement for the LHWP 2003/04–2007/08**

	<b>2003/04</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	
	2,427.017	2,951.117	3,862.182	4,945.734	4,632.628	18,81
ral	881.432	981.590	1,393.341	916.883	706.032	4,87
nce	1,545.585	1,969.527	2,468.841	4,028.851	3,926.596	13,93
ajab	667.056	875.847	1,183.009	2,008.701	1,912.425	6,64
dh	424.569	482.231	542.639	898.069	898.735	3,24
FP	208.892	307.607	365.693	583.170	577.315	2,04
ochistan	118.908	154.428	190.801	263.701	258.975	98
K	59.504	68.546	76.282	117.233	122.777	44
NA	32.781	39.379	51.116	69.729	68.849	26
TA	24.694	32.224	46.814	72.727	70.519	24
	9.181	9.265	12.487	15.521	17.001	6

Source: Finance section of the LHWP.

### D.4 Provincial expenditure by input, using the new classifications of the Chart of Accounts (Rs. million)

	Punjab					Sindh					
	2003/04	2004/05	2005/06	2006/07	2007/08	2003/04	2004/05	2005/06	2006/07	2007/08	
<b>Total</b>											
A01101- A01150	Employees' salaries/stipends/allowances Administration/management Monitoring and supervision LHW supervision LHW stipends	620.57	783.74	1,062.54	1,849.30	1,756.48	381.87	394.35	444.51	794.56	794.56
A03808	Travel and transportation	17.09	76.73	99.71	130.15	127.36	19.23	57.31	56.64	78.55	78.55
A03801	Training – domestic		40.05	53.45	50.14	55.00			17.79	21.80	21.80
A03805	Travelling allowance	0.73	5.01	2.33	3.90	4.75	3.22	7.77	5.80	6.01	6.01
A03806	Transportation charges	1.55	5.63	5.50	7.10	5.50	3.00	5.31	6.72	12.14	12.14
A03807	POL/CNG charges	14.81	26.04	38.43	69.01	62.11	13.01	18.72	26.32	38.61	38.61
A03901-71	General (procurements of consumable items/media)	0.85	0.50	1.00	1.00	1.40	0.50	0.60	1.25	0.60	0.60
	Printing and publications	0.05	0.05	0.20	0.30	0.10	–	0.10	0.50	–	–
	Advertising and publicity	0.80	0.45	0.80	0.70	1.30	0.50	0.50	0.75	0.60	0.60
A04101-70	Purchase of drugs and medicines, contraceptives										
A04101-70	Employees' retirement benefits	0.60	0.44	0.50	0.60	0.46	0.10	–	0.10	0.04	0.04
	Physical assets	12.50	1.57	3.73	4.98	0.97	4.20	3.14	19.52	0.75	0.75
AO9201-3	Computers/MIS equipment	–	0.51	0.96	0.40	0.82	–	1.14	1.77	0.25	0.25
A09401	Medical store (non-drug items, etc.)										
A09501	Purchase of transport/vehicles										
A09601- 09701	Equipment and machinery, and furniture and fixtures	4.50	1.06	0.72	0.78	0.15	2.90	2.00	10.52		
	Other assets (health house boards), etc.	8.00	–	2.05	3.80	–	1.30	–	7.23	0.50	0.50
A13001-99	Repairs and maintenance of	10.79	8.95	8.62	14.51	16.45	8.36	14.42	13.83	15.78	15.78

**P – Financial and Economic Analysis**

	Punjab					Sindh				
	2003/04	2004/05	2005/06	2006/07	2007/08	2003/04	2004/05	2005/06	2006/07	2007/08
physical assets										
Contingencies (actual expenses)	4.66	3.92	6.92	8.16	9.31	10.31	12.41	6.79	7.80	8.16
	<b>667.06</b>	<b>875.85</b>	<b>1,183.01</b>	<b>2,008.70</b>	<b>1,912.43</b>	<b>424.57</b>	<b>482.23</b>	<b>542.64</b>	<b>898.07</b>	<b>816.16</b>

Source: OPM LHWP Independent Evaluation, Quantitative Survey Data, 2000/01 and 2008.

Princial expenditure by input, using the new classifications of the Chart of Accounts (Rs. million) cont'd from  
e D.4

		NWFP					Balochistan				
		2003/04	2004/05	2005/06	2006/07	2007/08	2003/04	2004/05	2005/06	2006/07	2007/08
<b>Total</b>											
A01101- A01150	Employees' salaries/stipends/allowances	191.62	262.91	306.40	519.00	516.51	99.69	131.70	147.85	219.28	213.00
	Administration/management										
	Monitoring and supervision										
	LHW supervision										
	LHW stipends										
A03808	Travel and transportation	8.18	35.82	35.96	48.94	46.43	9.38	14.22	23.67	28.07	31.00
A03801	Training – domestic		17.80	15.00	18.52	18.00	–	3.46	5.27	6.40	8.00
A03805	Travelling allowance	2.02	10.31	2.43	3.10	3.13	2.17	2.12	3.90	4.69	4.00
A03806	Transportation charges	0.40	0.71	1.55	2.60	1.90	1.37	1.14	1.23	1.70	2.00
A03807	POL/CNG charges	5.76	7.00	16.98	24.71	23.41	5.84	7.51	13.26	15.28	17.00
A03901-71	General (procurements of consumable items/media)	0.50	0.45	0.80	0.52	0.90	–	0.33	1.25	0.53	0.00
	Printing and publications	–	0.10	0.05	0.12	0.10	–	–	0.50	0.28	0.00
	Advertising and publicity	0.50	0.35	0.75	0.40	0.80	–	0.33	0.75	0.25	0.00
A04101-70	Purchase of drugs and medicines, contraceptives										
A04101-70	Employees' retirement benefits	0.12	0.12	0.27	0.19	0.30	0.10	0.12	0.38	0.09	0.00
	Physical assets	2.37	1.19	12.42	0.75	0.65	3.10	1.40	3.16	1.78	0.00

**P – Financial and Economic Analysis**

		NWFP					Balochistan				
		2003/04	2004/05	2005/06	2006/07	2007/08	2003/04	2004/05	2005/06	2006/07	2007/08
AO9201-3	Computers/MIS equipment	–	0.80	0.05	0.25	0.55	–	0.50	1.00	0.15	0.15
A09401	Medical store (non-drug items, etc.)										
A09501	Purchase of transport/vehicles										
A09601-09701	Equipment and machinery, and furniture and fixtures	1.94	0.39	12.37	0.50	0.10	1.50	0.90	0.56	1.13	0.10
	Other assets (health house boards), etc.	0.43					1.60		1.60	0.50	
A13001-99	Repair and maintenance of physical assets	2.69	3.90	4.44	6.37	4.92	3.62	3.91	6.72	6.58	6.58
	Contingencies (actual expenses)	3.42	3.24	5.40	7.41	7.61	3.03	2.75	7.78	7.37	6.58
		<b>208.89</b>	<b>307.61</b>	<b>365.69</b>	<b>583.17</b>	<b>577.32</b>	<b>118.91</b>	<b>154.43</b>	<b>190.80</b>	<b>263.70</b>	<b>258.91</b>

Source: OPM LHWP Independent Evaluation, Quantitative Survey Data, 2000/01 and 2008.

Principal expenditure by input, using the new classifications of the Chart of Accounts (Rs. million) cont'd from  
 e D.4

	AJK					FANA				
	2003/04	2004/05	2005/06	2006/07	2007/08	2003/04	2004/05	2005/06	2006/07	2007/08
<b>Total</b>										
A01101- A01150	52.66	57.43	62.50	102.53	107.71	27.70	32.33	37.24	56.51	54.2
Employees' salaries/stipends/allowances										
Administration/management										
Monitoring and supervision										
LHW supervision										
LHW stipends										
A03808	3.55	7.67	8.00	8.68	10.32	2.65	4.45	6.54	7.63	10.1
Travel and transportation										
A03801	–	3.43	2.07	1.51	2.52	–	1.79	1.90	1.48	3.4
Training – domestic										
A03805	0.98	1.06	1.34	1.34	1.42	0.78	0.61	1.40	1.56	1.5
Travelling allowance										
A03806	0.26	0.33	0.57	0.84	1.01	0.25	0.24	0.62	0.65	0.8
Transportation charges										
A03807	2.30	2.85	4.03	5.00	5.37	1.62	1.81	2.62	3.95	4.4
POL/CNG charges										
A03901-71	0.14	0.13	0.36	0.18	0.18	–	0.01	0.25	0.10	0.1
General (procurements of consumable items/media)										
Printing and publications			0.20					0.15		
Advertising and publicity	0.14	0.13	0.16	0.18	0.18	–	0.01	0.10	0.10	0.1
A04101-70										
Purchase of drugs and medicines, contraceptives										
A04101-70	0.25	0.28	0.35	0.18	0.23	0.04	0.10	0.15	0.15	0.2
Employees' retirement benefits										
Physical assets	0.64	0.47	0.76	0.51	0.11	0.37	–	1.66	0.76	0.0

**P – Financial and Economic Analysis**

		AJK					FANA				
		2003/04	2004/05	2005/06	2006/07	2007/08	2003/04	2004/05	2005/06	2006/07	2007/08
AO9201-3	Computers/MIS equipment	–	0.40	0.36	0.21	0.11			0.50	0.56	0.00
A09401	Medical store (non-drug items, etc.)										
A09501	Purchase of transport/vehicles										
A09601-09701	Equipment and machinery, and furniture and fixtures	0.54	0.07	0.34	–	–	0.26	–	0.56		
	Other assets (health house boards), etc.	0.10	–	0.06	0.30	–	0.11	–	0.60	0.20	–
A13001-99	Repairs and maintenance of physical assets	0.97	1.21	2.79	1.78	2.23	0.95	1.52	1.63	1.36	1.62
	Contingencies (actual expenses)	1.31	1.37	1.51	3.38	2.00	1.07	0.97	3.65	3.21	2.40
		<b>59.50</b>	<b>68.55</b>	<b>76.28</b>	<b>117.23</b>	<b>122.77</b>	<b>32.78</b>	<b>39.38</b>	<b>51.12</b>	<b>69.73</b>	<b>68.80</b>

Source: OPM LHWP Independent Evaluation, Quantitative Survey Data, 2000/01 and 2008.

Principial expenditure by input, using the new classifications of the Chart of Accounts (Rs. million) cont'd from  
 e D.4

FATA					ICT						
2003/04	2004/05	2005/06	2006/07	2007/08	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
19.83	26.22	35.27	60.36	57.76	7.86	7.72	8.82	12.73			
1.94	2.51	5.83	7.43	7.87	0.58	0.58	1.20	1.28			
–	0.37	2.00	1.64	2.41	–	–	0.36	0.39			
0.34	0.50	0.76	0.98	1.00	0.05	0.06	0.05	0.06			
0.09	0.07	0.33	0.35	0.53	0.01	0.03	0.07	0.07			
1.52	1.57	2.75	4.46	3.94	0.52	0.49	0.72	0.75			
0.06	0.07	0.35	0.10	0.15		0.03	0.26	0.12			
0.01		0.15	–	0.05		–	0.05				
0.05	0.07	0.20	0.10	0.10		0.03	0.21	0.12			
0.08	0.06	0.18	0.10	0.20	0.03	0.05	0.04	0.06			
1.59	1.36	1.78	0.53	0.07	0.06	0.08	0.67	0.12			
	0.07	0.23	0.35	0.05			0.11	0.07			
A09501	Purchase of transport/vehicles										
A09601-09701	Equipment and machinery, and furniture and fixtures		1.33	1.29	0.76	0.08	0.02	0.04	0.08	0.53	–
	Other assets (health house boards), etc.		0.26	–	0.79	0.10	–	0.02	–	0.03	0.05
A13001-99	Repairs and maintenance of physical assets		0.48	1.15	1.01	1.14	2.10	0.31	0.34	0.47	0.42
	Contingencies (actual expenses)		0.72	0.85	2.38	3.06	2.37	0.35	0.48	1.05	0.79
			<b>24.69</b>	<b>32.23</b>	<b>46.81</b>	<b>72.73</b>	<b>70.52</b>	<b>9.18</b>	<b>9.27</b>	<b>12.49</b>	<b>15.52</b>

Source: OPM LHWP Independent Evaluation, Quantitative Survey Data, 2000/01 and 2008.

**P – Financial and Economic Analysis**

Capital expenditure by input, using the new classifications of the Chart of Accounts (Rs. million) cont'd from Table D.4 (Rs. million)

		Federal					Total				
		2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08
<b>Capital</b>											
A01101- A01150	Employees' salaries/ stipends/allowances	4.03	4.64	15.35	7.81	13.53	789.28	921.94	1,073.29	1,780.59	1,770.23
	Administration/ management										
	Monitoring and supervision										
	LHW supervision										
	LHW stipends										
A03808	Travel and transportation	4.71	4.65	10.27	18.27	6.72	54.91	131.85	158.37	217.13	211.70
A03801	Training – domestic					0.60		52.35	44.40	51.75	59.92
A03805	Travelling allowance	2.22	2.15	2.60	3.50	2.83	13.98	26.73	20.87	24.73	23.77
A03806	Transportation charges	0.90		3.64	10.67		7.17	7.83	18.36	39.68	21.88
A03807	POL/CNG charges	1.59	2.50	4.03	4.10	3.29	33.75	44.94	74.75	100.97	106.12
A03901- 71	General (procurements of consumable items/media)	683.29	652.8 9	886.9 4	869.4 5	671.1 8	1,367.7 8	1,307.3 9	1,778.40	1,741.04	1,344.62
	Printing and publications	17.16	39.18	54.00	39.90	5.00	34.33	78.55	109.60	80.19	10.35
	Advertising and publicity	55.00	70.69	57.59	58.00	70.00	111.19	42.79	118.10	117.75	141.91

		Federal					Total				
		2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08
A04101-70	Purchase of drugs and medicines, contraceptives	611.13	543.03	775.35	771.55	596.18	1,222.26	1,086.05	1,550.70	1,543.10	1,192.36
A04101-70	Employees' retirement benefits	0.20	0.32	0.42	0.55	0.76	1.11	1.37	2.32	1.90	3.08
	Physical assets	183.72	282.43	468.24	0.54	0.31	379.77	572.51	976.46	6.28	2.75
AO9201-3	Computers/MIS equipment	–	0.50	1.10	0.31	0.21		3.90	6.22	2.45	2.19
A09401	Medical store (non-drug items, etc.)										
A09501	Purchase of transport/vehicles	174.36	280.88	465.06			348.72	561.76	930.12		
A09601-09701	Equipment and machinery, and furniture and fixtures	1.05	1.06	0.45	0.17	0.10	10.60	6.85	26.54	2.04	0.57
	Other assets (health house boards), etc.	8.32	–	1.63	0.07	–	20.45	–	13.58	1.78	–
A13001-99	Repairs and maintenance of physical assets	0.87	1.40	2.48	0.94	0.52	19.11	29.24	35.85	35.30	36.51
	Contingencies (actual expenses)	4.62	35.26	9.63	19.33	13.03	29.44	92.56	47.82	71.68	57.37
		<b>881.43</b>	<b>981.59</b>		<b>916.88</b>	<b>706.04</b>	<b>2,641.40</b>	<b>3,056.86</b>	<b>4,072.52</b>	<b>3,853.92</b>	<b>3,426.25</b>

## Annex E Vehicle depreciation

### Table E.1 Vehicle depreciation schedule

Procurement year	Quantity	Cost per vehicle ('000)	Total cost ('000)	1994-95 ('000)	1995-96 ('000)	1996-97 ('000)	1997-98 ('000)	1998-99 ('000)	1999-00 ('000)	2000-01 ('000)	2001-02 ('000)	2002-03 ('000)	2003-04 ('000)	2004-05 ('000)	2005-06 ('000)	2006-07 ('000)
1994-1995	275	188	51,700	5,170	5,170	5,170	5,170	5,170	5,170	5,170	5,170	5,170	5,170			
1996-1997	670	237	158,790			15,879	15,879	15,879	15,879	15,879	15,879	15,879	15,879	15,879	15,879	15,879
1996-1997	75	278	20,850			2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085	2,085
1996-1997	67	510	34,170			3,417	3,417	3,417	3,417	3,417	3,417	3,417	3,417	3,417	3,417	3,417
1999-2000	33	585	19,305						1,931	1,931	1,931	1,931	1,931	1,931	1,931	1,931
2001-2002	40	367	14,680							1,468	1,468	1,468	1,468	1,468	1,468	1,468
2001-2002	324	272	88,219							8,822	8,822	8,822	8,822	8,822	8,822	8,822
2002-2003	40	618	24,720								2,472	2,472	2,472	2,472	2,472	2,472
2002-2003	200	312	62,400								6,240	6,240	6,240	6,240	6,240	6,240
2003-2004	440	312	137,280									13,728	13,728	13,728	13,728	13,728
2003-2004	60	618	37,080									3,708	3,708	3,708	3,708	3,708
2004-2005	514	312	160,368										16,037	16,037	16,037	16,037
2004-2005	195	618	120,510										12,051	12,051	12,051	12,051
2005-2006	954	312	297,648											29,765	29,765	29,765
2005-2006	214	618	132,252											13,225	13,225	13,225
<b>Total depreciation cost per year</b>			<b>1,359,972</b>	<b>5,170</b>	<b>5,170</b>	<b>26,551</b>	<b>26,551</b>	<b>26,551</b>	<b>28,482</b>	<b>28,482</b>	<b>38,771</b>	<b>47,483</b>	<b>64,919</b>	<b>87,837</b>	<b>130,827</b>	<b>109,446</b>

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Assumptions.

- Straight-line method of depreciation;
- Every vehicle has a useful life of ten years;
- Every vehicle has a salvage value of nil at the end of its useful life;
- Depreciation in the year of purchase.

## **F.1 Procurement of drugs and equipment.**

The PC-1 specified a 'monthly need' for medicines for each LHW. The average number of LHWs for the five-year period of the study was planned at 94,820. The actual average of working LHWs was 80,191. There was no medicine for which there was sufficient procurement to meet the monthly specification, either for the planned number of LHWs or even for the actual number (Table F.1)

## Annex F.1 Drug purchasing, by accounting unit, 2003/04–2007/08

Accounting unit	Quantity procured			Average amount available per month/ LHW			Difference between PC-1 monthly specification and actual pro					
	2003/04	2004/05	2005/06	2006/07	2007/08	Total procured from 2003/08	Average/ month	Planned no. of LHWs averaged in the PC-1 = 94820	Actual no. of LHWs on average = 80191	Monthly need as specified in the PC-1	Planned nos of LHWs	
Paracetamol	Pack, 200 tablets, in strip/ blister	408,593	820,947	735,318	406,867	1,522,899	3,894,624	64,910.40	0.68	0.81	1	-0.32
Paracetamol	Bottle, 60ml, with carton			15,933,398	1,904,312	19,798,498	37,636,208	627,270.13	6.62	7.82	10	-3.38
Quinine	Pack, 100 tablets, in strip/ blister	606,961	740,980	190,702	447,546	811,351	2,797,540	46,625.67	0.49	0.58	1	-0.51
Quinine	Bottle, 60ml, with carton	3,173,482	3,597,322	2,145,900	3,021,316	7,127,976	19,065,996	317,766.60	3.35	3.96	5	-1.65
Aspirin with folic acid tablets	Pack, 1000 tablets, in strip/ blister	492,975	757,296	310,590	443,109	1,417,615	3,421,585	57,026.42	0.60	0.71	1	-0.40
Antibiotic lotion	Bottle, 50ml, with carton	598,771	1,175,675	439,217	643,320	1,631,889	4,488,872	74,814.53	0.79	0.93	1	-0.21
Fluconazole	Bottle, 50ml, with carton	3,214,243		5,449,458	2,474,488	7,899,914	19,038,103	317,301.72	3.35	3.96	5	-1.65
Antibiotic ointment	Tube, 4 gm, with carton	4,096,073	4,217,157	5,370,872	7,271,303	12,416,237	33,371,642	556,194.03	5.87	6.94	10	-4.13
Paracetamol syrup	Bottle, 120 ml, with carton	9,683,426	3,117,227	0	6,221,865	8,852,617	27,875,135	464,585.58	4.90	5.79	7	-2.10

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	Accounting unit	Quantity procured			Average amount available per month/ LHW			Difference between PC-1 monthly specification and actual pro				
		2003/04	2004/05	2005/06	2006/07	2007/08	Total procured from 2003/08	Average/ month	Planned no. of LHWs averaged in the PC-1 = 94820	Actual no. of LHWs on average = 80191	Monthly need as specified in the PC-1	Planned nos of LHWs
te lotion	Bottle, 60ml, with carton	1,250,630		2,087,071	1,493,650	2,280,061	7,111,412	118,523.53	1.25	1.48	2	-0.75
g plaster	One roll, with carton		1,981,584	230,998	351,210	1,615,524	4,179,316	69,655.27	0.73	0.87	1	-0.27
dazole	Pack, 100 tablets, in strip/ blister	340,176	856,674	406,942	136,732	653,541	2,394,065	39,901.08	0.42	0.50	1.5	-1.08
wool	Roll, 250 gm, with packing		1,973,447	838,903	314,012	1,358,913	4,485,275	74,754.58	0.79	0.93	1	-0.21
ge	Pack, 12, with packing		1,979,424	1,052,850	429,822	669,179	4,131,275	68,854.58	0.73	0.86	1	-0.27
zine	Bottle, 30ml, with carton	2,294,073	1,378,741	2,890,752	3,165,461	7,496,418	17,225,445	287,090.75	3.03	3.58	5	-1.97
ation	Pack, 20 sachets	265,042	874,435	482,208	535,196	1,549,804	3,706,685	61,778.08	0.65	0.77	1	-0.35
ceptive	Cycle			8,073,000	15,210,000	5,779,693	29,062,693	484,378.22	5.11	6.04	10	-4.89
ometer	One piece			87,424	11,940	86,592	185,956	3,099.27	0.04	0.04		
rs	One piece	16,963	49,541	68,765	5,040	110,939	251,248	4,187.47	0.05	0.05		

	Accounting unit	Quantity procured			Average amount available per month/ LHW			Difference between PC-1 monthly specification and actual pro				
		2003/04	2004/05	2005/06	2006/07	2007/08	Total procured from 2003/08	Average/ month	Planned no. of LHWs averaged in the PC-1 = 94820	Actual no. of LHWs on average = 80191	Monthly need as specified in the PC-1	Planned nos of LHWs
torch	One piece, with two cells		54,362	59,281		54,395	168,038	2,800.63	0.03	0.03		
it bag	One piece					74,781	74,781	1,246.35	0.01	0.02		
weighing	One piece					112,460	112,460	1,874.33	0.02	0.02		

In the PC-1, mebendazole tablets were to be provided in packets of 150. This is defined as the accounting unit. The month need was specified as 1 pack (150 tablets). Actual procurement was in packets of 100 tablets. The adjustment has been made in the calculations; the average number of LHWs is the average number of LHWs per working or planned to be working during the FY 2003/08, including the RHP- and the WHP-funded LHWs and as recorded in the FPIU PSP. Source: FPIU of LHWP; Ministry of Health.

Comparing the procurement of 2003/08 with 1994/2000, less of the budget is now being spent as a percentage of the total expenditure on ferrous fumarate and folic acid tablets, chloroquine tablets, and mebendazole tables; more is being spent on paracetamol syrup and tablets, cotton bandages, cotton wool, sticking plaster, and piperazine syrup.

In comparison with 2003/08, in 1994/2000 the major items of expenditure (accounting for 56 percent of the total spent on medicines) were: ferrous fumarate and folic acid tablets, mebendazole tablets, eye ointment, paracetamol syrup, and chloroquine tablets. Oral contraceptive pills (previously purchased by UNFPA) and cotton bandages have replaced mebendazole and chloroquine tablets.

**Figure F.2 Comparison of total expenditure and percentage of total expenditure of purchases of drugs purchased in 1994–2000 and 2003–08 (item by item)**

	Accounting unit	1994–2000 total (Rs. million)	2003–08 total (Rs. million)	1994–2000 % of total	2003–08 % of total
Aspirin	Pack, 1,000 tablets, in strip/blister	186.30	417.04	22.10	22.10
Acetylsalicylic acid tablets					
Paracetamol syrup	Bottle, 60ml, with carton	68.60	292.08	8.14	8.14
Adhesive bandage	Pack, one dozen, with packing	39.70	268.20	4.71	4.71
Antibiotic ointment	Tube, 4 gm, with carton	70.30	216.99	8.34	8.34
Wool	Roll, 250 gm, with packing	21.80	206.00	2.59	2.59
Vitamin B complex syrup	Bottle, 120 ml, with carton	54.20	195.27	6.43	6.43
Oral rehydration salts	Pack, 20 sachets	60.40	176.15	7.16	7.16
Paracetamol tablets	Pack, 200 tablets, in strip/blister	30.40	175.15	3.61	3.61
Cloxacillin syrup	Bottle, 50ml, with carton	44.90	157.87	5.33	5.33
Chloroquine syrup	Bottle, 60ml, with carton	38.30	130.30	4.54	4.54
Chloroquine tablets	Pack, 100 tablets, in strip/blister	64.20	106.48	7.61	7.61
Clotrimazole tablets	Pack, 100 tablets, in strip/blister	83.10	101.94	9.86	9.86
Plaster	One roll, with carton	13.10	69.05	1.55	1.55
Antiseptic lotion	Bottle, 50ml, with carton	24.20	65.64	2.87	2.87
Salicylic acid benzoate lotion	Bottle, 60ml, with carton	18.40	45.95	2.18	2.18
		<b>843.10</b>	<b>2736.32</b>		

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

previous week, if the item were in stock. In Table F.3, this figure is then used to calculate monthly dispensing by the LHW. There is considerable variation between the requirement in the PC-1 and the actual dispensing pattern. The LHW is dispensing more of eight of the 15 items including: benzyl benzoate lotion, antiseptic lotion, eye ointment, Vitamin B complex syrup, and bandages. She is dispensing considerably fewer iron, mebendazole and chloroquine tablets.

### Annex F.3 Purchasing level of drugs compared with actual dispensing by LHWs

Item	Dispensing unit	Monthly requirements specified in the PC-1 by dispensing unit	LHW monthly dispensing at the time of the survey if she had the unit in stock (1)	Difference between monthly need in PC-1 and dispensing pattern	Average dispensing unit procured per month, 2003–08 (2)	Total stock dispensed monthly as per survey given av. no. of LHWs = 80,191	Total dispensed monthly per survey less the procurement
A	B	C	D	E = D - C	F	G = D*80191	H
Paracetamol tablets	Tablet	200	136.1	-63.9	216,368.0	10,913,995.0	-10,697.9
Paracetamol syrup	Teaspoon, 5ml	120	158.6	38.6	125,454.0	12,718,293.0	-12,594.4
Chloroquine tablets	Tablet	100	27.7	-72.3	77,709.4	2,221,290.7	-2,143.5
Chloroquine syrup	Teaspoon, 5ml	60	55	-5	63,553.3	4,410,505.0	-4,347.7
Ferrous fumarate + folic acid tablets	Tablet	1,000	385.7	-614.3	950,440.3	30,929,669.0	-29,973.3
Antiseptic lotion	Teaspoon, 5ml	10	17.3	7.3	12,469.1	1,387,304.3	-1,374.9
Cotrimoxazole syrup	Teaspoon, 5ml	60	69.3	9.3	52,883.6	5,557,236.3	-5,504.7
Eye ointment	Tube (4mg)	10	28.6	18.6	9,269.9	2,293,462.6	-2,284.0
Vitamin B complex syrup	Teaspoon, 5ml	84	228.4	144.4	185,834.2	18,315,624.0	-18,129.6
Benzyle benzoate lotion	Teaspoon, 5ml	25	48.5	23.5	23,704.7	3,889,263.5	-3,869.8
Mebendazole tablets	Tablet	150	30.3	-119.7	66,501.8	2,429,787.3	-2,369.5
Cotton bandage	Piece	1	6.1	5.1	13,770.9	489,165.1	-479.2

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Item	Dispensing unit	Monthly requirements specified in the PC-1 by dispensing unit	LHW monthly dispensing at the time of the survey if she had the unit in stock (1)	Difference between monthly need in PC-1 and dispensing pattern	Average dispensing unit procured per month, 2003–08 (2)	Total stock dispensed monthly as per survey given av. no. of LHWs = 80,191	Total dispensed monthly per survey less the procured
A	B	C	D	E = D - C	F	G = D*80191	H
Piperazine syrup	Teaspoon, 5ml	30	45.5	15.5	28,709.1	3,648,690.5	-3,610
Oral rehydration salts	Sachet	20	12.1	-7.9	20,592.7	970,311.1	-940
Oral contraceptive pills	Cycle	20	18.4	-1.6	8,073.0	1,475,514.4	-1,460

Source: (1) OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008; (2) Logistics Division, LHWP.

**Assumptions** for all scenarios are that inflation is at 7.5 percent. In all scenarios, a budget is projected for 2008/09, although the budget for this year was funded from residual PC-1 funds. It is assumed that the cost structure of the original PC-1 is retained for Scenario 1. In Scenario 2, the salary of the LHW for 2007/08 is used and, for Scenario 3, the salary of an LHW and an LHS for 2007/08 is used, and the salary of a driver from January 2008 is used.

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Table G.1 Scenario 1: 100,000 LHWs

	Intended share as per PC-1 (%)	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 100,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09/10
					1.075	1.156	1.242297	1.335469	1.435629	1.543302	
Management and training	4.60	1,196	2,714	271.35	291.70	313.68	337.02	362.26	389.66	418.70	1,804.72
Supervision	10.94	2,844	6,450	644.98	693.35	745.59	801.06	861.05	926.19	995.20	4,012.74
Stipends	45.16	11,741	26,630	2,662.98	2,862.70	3,078.40	3,307.42	3,555.08	3,824.04	4,108.98	16,647.22
Transportation of LHWs and other items	0.19	49	111	11.11	11.95	12.85	13.80	14.84	15.96	17.15	76.50
Construction of office building and house	0.25	64	145	14.46	15.55	16.72	17.96	19.31	20.77	22.32	102.87
Capacity-building (skill development of LHWs and staff)	3.43	892	2,023	202.27	217.44	233.82	251.21	270.02	290.45	312.10	1,388.28
Costs of drugs and medical supplies	24.40	6,342	14,385	1,438.46	1,546.35	1,662.86	1,786.57	1,920.35	2,065.63	2,219.55	8,830.56
Replacement of vehicles	6.24	1,623	3,681	368.14	395.75	425.57	457.23	491.47	528.65	568.05	2,261.47
Replacement of other equipment	0.17	45	101	10.15	10.91	11.73	12.60	13.55	14.57	15.66	70.12
Communications and computer equipment	0.12	31	71	7.08	7.61	8.18	8.79	9.45	10.16	10.92	48.30
Health promotion campaign/Health education campaign	2.14	556	1,260	126.04	135.49	145.70	156.54	168.27	181.00	194.48	706.97

	Intended share as per PC-1 (%)	PC-1 budget in 2007/08 prices to purchase 88,180, (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 100,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09/1
rs and maintenance	0.11	28	65	6.46	6.95	7.47	8.03	8.63	9.28	9.97	
sical assets other											
ehicles											
rch and pilot studies	0.12	30	69	6.87	7.38	7.94	8.53	9.17	9.86	10.59	
oration with NGOs	0.15	38	87	8.67	9.32	10.03	10.77	11.58	12.45	13.38	
ainment charges	0.02	6	14	1.37	1.48	1.59	1.71	1.83	1.97	2.12	
gencies/operating	1.97	512	1,161	116.08	124.78	134.19	144.17	154.96	166.69	179.11	
ses											
2003/04 prices) total		25,998	58,965	5,896.48	6,338.71	6,816.33	7,323.42	7,871.80	8,467.34	9,098.26	36
ar (Rs. million)											
					<b>Total</b>	<b>39,577.15</b>		<b>for 100,000</b>			

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Table G.2 Scenario 1: 150,000 LHW

	Intende d share as per PC-1 (%)	PC-1 budget in 2007/08 Prices to purchase 88,180 (Rs. million)	Planne d average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 150,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
ment and g	4.60	1,196	2,714	407.03	437.56	470.52	505.53	543.38	584.49	628.04
per vision	10.94	2,844	6,450	967.47	1,040.03	1,118.39	1,201.59	1,291.57	1,389.28	1,492.80
ends	45.16	11,741	26,630	3,994.47	4,294.05	4,617.61	4,961.13	5,332.62	5,736.06	6,163.47
atation of s and other	0.19	49	111	16.67	17.92	19.27	20.71	22.26	23.94	25.72
ffice building house	0.25	64	145	21.70	23.32	25.08	26.95	28.96	31.15	33.48
-building (skill ment of LHWs ers)	3.43	892	2,023	303.40	326.15	350.73	376.82	405.04	435.68	468.14
es of drugs and otives	24.40	6,342	14,385	2,157.70	2,319.52	2,494.30	2,679.86	2,880.52	3,098.45	3,329.32
ment of vehicles	6.24	1,623	3,681	552.22	593.63	638.36	685.85	737.21	792.98	852.07
ment of other	0.17	45	101	15.22	16.36	17.60	18.90	20.32	21.86	23.49
ns mputer nt	0.12	31	71	10.61	11.41	12.27	13.18	14.17	15.24	16.38

	Intende d share as per PC-1 (%)	PC-1 budget in 2007/08 Prices to purchase 88,180 (Rs. million)	Planne d average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 150,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
ampaign/Health n campaign	2.14	556	1,260	189.06	203.24	218.56	234.81	252.40	271.49	291.72
and nce of physical her than	0.11	28	65	9.69	10.42	11.20	12.04	12.94	13.92	14.96
n and pilot	0.12	30	69	10.30	11.07	11.90	12.79	13.75	14.79	15.89
ation with	0.15	38	87	13.01	13.99	15.04	16.16	17.37	18.68	20.07
ment charges	0.02	6	14	2.06	2.21	2.38	2.56	2.75	2.96	3.18
ncies/operatin es	1.97	512	1,161	174.12	187.18	201.28	216.25	232.45	250.03	268.66
03/04 prices) year (Rs.		25,998	58,965	8,844.71	9,508.07	10,224.49	10,985.13	11,807.69	12,701.01	13,647.39
					<b>Total</b>	<b>59,365.72</b>		<b>for 150,000</b>		

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Figure G.3 Scenario 1: 200,000 LHWs

	Intended share as per PC-1 (%)	PC-1 budget in 2007/08 Prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 200,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total
					1.075	1.156	1.242297	1.335469	1.435629	1.543302	
ent and	4.60	1,196	2,714	542.70	583.41	627.37	674.04	724.51	779.32	837.39	
er vision	10.94	2,844	6,450	1,289.96	1,386.70	1,491.19	1,602.12	1,722.09	1,852.38	1,990.40	
ds	45.16	11,741	26,630	5,325.96	5,725.41	6,156.81	6,614.84	7,110.16	7,648.08	8,217.96	
ion of and other	0.19	49	111	22.23	23.89	25.70	27.61	29.67	31.92	34.30	
ce building use	0.25	64	145	28.93	31.10	33.44	35.93	38.62	41.54	44.63	
ilding (skill nt of LHWs )	3.43	892	2,023	404.53	434.87	467.64	502.43	540.05	580.91	624.19	
of drugs and ves	24.40	6,342	14,385	2,876.93	3,092.70	3,325.73	3,573.14	3,840.70	4,131.27	4,439.10	
nt of vehicles	6.24	1,623	3,681	736.29	791.51	851.15	914.47	982.94	1,057.31	1,136.09	
nt of other	0.17	45	101	20.29	21.82	23.46	25.21	27.09	29.14	31.31	
uter	0.12	31	71	14.15	15.21	16.36	17.58	18.89	20.32	21.84	

	Intended share as per PC-1 (%)	PC-1 budget in 2007/08 Prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 200,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total
ampaign/Health campaign	2.14	556	1,260	252.08	270.99	291.41	313.09	336.53	361.99	388.96	
d e of physical r than	0.11	28	65	12.92	13.89	14.94	16.05	17.25	18.56	19.94	
nd pilot	0.12	30	69	13.73	14.76	15.87	17.05	18.33	19.72	21.19	
on with NGOs	0.15	38	87	17.35	18.65	20.05	21.54	23.16	24.91	26.77	
ent charges	0.02	6	14	2.75	2.95	3.17	3.41	3.67	3.94	4.24	
ies/operating	1.97	512	1,161	232.16	249.57	268.37	288.34	309.93	333.38	358.22	
04 prices) ar (Rs.		25,998	58,965	11,792.95	12,677.42	13,632.65	14,646.85	15,743.59	16,934.68	18,196.53	
					<b>Total</b>	<b>79,154.29</b>		<b>for 200,000</b>			

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Scenario 2, using the 2007/08 salary of the LHW

Table G.4 Scenario 2: 100,000 LHWs

	PC-1 budget in 2007/08 Prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 100,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09/10
Management and training	1,196	2,714	271.35	291.70	313.68	337.02	362.26	389.66	418.70	1,600.00
Supervision	2,844	6,450	644.98	693.35	745.59	801.06	861.05	926.19	995.20	4,000.00
Stipends		35,880	3,588.00	3,857.10	4,147.73	4,456.30	4,789.98	5,152.37	5,536.28	22,400.00
Transportation of LHWs and other items	49	111	11.11	11.95	12.85	13.80	14.84	15.96	17.15	
Construction of office building and house	64	145	14.46	15.55	16.72	17.96	19.31	20.77	22.32	
Construction of city-building (skill development of LHWs trainers)	892	2,023	202.27	217.44	233.82	251.21	270.02	290.45	312.10	1,200.00
Costs of drugs and receptives	6,342	14,385	1,438.46	1,546.35	1,662.86	1,786.57	1,920.35	2,065.63	2,219.55	8,900.00
Acquisition of vehicles	1,623	3,681	368.14	395.75	425.57	457.23	491.47	528.65	568.05	2,200.00
Acquisition of other assets	45	101	10.15	10.91	11.73	12.60	13.55	14.57	15.66	
Information technology equipment	31	71	7.08	7.61	8.18	8.79	9.45	10.16	10.92	
Health promotion campaign	556	1,260	126.04	135.49	145.70	156.54	168.27	181.00	194.48	700.00
Repairs and maintenance of physical assets other than vehicles	28	65	6.46	6.95	7.47	8.03	8.63	9.28	9.97	

	PC-1 budget in 2007/08 Prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 100,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09/10
Search and pilot services	30	69	6.87	7.38	7.94	8.53	9.17	9.86	10.59	
Cooperation with NGOs	38	87	8.67	9.32	10.03	10.77	11.58	12.45	13.38	
Maintenance charges	6	14	1.37	1.48	1.59	1.71	1.83	1.97	2.12	
Agencies/operating costs	512	1,161	116.08	124.78	134.19	144.17	154.96	166.69	179.11	7
(2003/04 prices) per year (Rs. million)	14,256	68,215	6,821.50	7,333.11	7,885.65	8,472.30	9,106.70	9,795.67	10,525.57	4,256
			<b>Total</b>		<b>45,785.88</b>		<b>for 100,000</b>			

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Table G.5 Scenario 2: 150,000 LHWs

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 150,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09/10
Management and training	1,196	2,714	407.03	437.56	470.52	505.53	543.38	584.49	628.04	2,568.52
Supervision	2,844	6,450	967.47	1,040.03	1,118.39	1,201.59	1,291.57	1,389.28	1,492.80	6,065.00
Stipends		35,880	5,382.00	5,785.65	6,221.59	6,684.44	7,184.97	7,728.55	8,304.43	33,608.63
Transportation of LHWs and other	49	111	16.67	17.92	19.27	20.71	22.26	23.94	25.72	109.89
Construction of office building and warehouse	64	145	21.70	23.32	25.08	26.95	28.96	31.15	33.48	144.92
City-building (skill development of LHWs trainers)	892	2,023	303.40	326.15	350.73	376.82	405.04	435.68	468.14	1,801.21
Procurement of drugs and contraceptives	6,342	14,385	2,157.70	2,319.52	2,494.30	2,679.86	2,880.52	3,098.45	3,329.32	13,480.27
Procurement of vehicles	1,623	3,681	552.22	593.63	638.36	685.85	737.21	792.98	852.07	3,428.03
Procurement of other supplies	45	101	15.22	16.36	17.60	18.90	20.32	21.86	23.49	101.03
Communications and computer equipment	31	71	10.61	11.41	12.27	13.18	14.17	15.24	16.38	71.03
Health promotion campaign/Health education campaign	556	1,260	189.06	203.24	218.56	234.81	252.40	271.49	291.72	1,116.32

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 150,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09/10
rs and enance of physical s other than es	28	65	9.69	10.42	11.20	12.04	12.94	13.92	14.96	
rch and pilot s	30	69	10.30	11.07	11.90	12.79	13.75	14.79	15.89	
oration with NGOs	38	87	13.01	13.99	15.04	16.16	17.37	18.68	20.07	
ainment charges	6	14	2.06	2.21	2.38	2.56	2.75	2.96	3.18	
gencies/operating ses	512	1,161	174.12	187.18	201.28	216.25	232.45	250.03	268.66	1,0
2003/04 prices) er year (Rs. )	14,256	68,215	10,232.24	10,999.66	11,828.47	12,708.45	13,660.05	14,693.50	15,788.35	63,8
				<b>Total</b>	<b>68,678.83</b>		<b>for 150,000</b>			

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Table G.6 Scenario 2: 200,000 LHWs

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 200,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total
				1.075	1.156	1.242297	1.335469	1.435629	1.543302	
Management and training	1,196	2714	542.70	583.41	627.37	674.04	724.51	779.32	837.39	
Supervision	2,844	6,450	1,289.96	1,386.70	1,491.19	1,602.12	1,722.09	1,852.38	1,990.40	
Stipends		35,880	7,176.00	7,714.20	8,295.46	8,912.59	9,579.96	10,304.74	11,072.57	4
Transportation of vehicles and other	49	111	22.23	23.89	25.70	27.61	29.67	31.92	34.30	
Construction of office building and warehouse	64	145	28.93	31.10	33.44	35.93	38.62	41.54	44.63	
Capacity-building (skill development of LHWs trainers)	892	2,023	404.53	434.87	467.64	502.43	540.05	580.91	624.19	
Costs of drugs and contraceptives	6,342	14,385	2,876.93	3,092.70	3,325.73	3,573.14	3,840.70	4,131.27	4,439.10	1
Replacement of vehicles	1,623	3,681	736.29	791.51	851.15	914.47	982.94	1,057.31	1,136.09	
Replacement of other vehicles	45	101	20.29	21.82	23.46	25.21	27.09	29.14	31.31	
Communications and computer equipment	31	71	14.15	15.21	16.36	17.58	18.89	20.32	21.84	
Insurance/Health promotion campaign	556	1,260	252.08	270.99	291.41	313.09	336.53	361.99	388.96	

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 200,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total
rs and enance of al assets other ehicles	28	65	12.92	13.89	14.94	16.05	17.25	18.56	19.94	
rch and pilot s	30	69	13.73	14.76	15.87	17.05	18.33	19.72	21.19	
oration with	38	87	17.35	18.65	20.05	21.54	23.16	24.91	26.77	
ainment charges	6	14	2.75	2.95	3.17	3.41	3.67	3.94	4.24	
gencies/operat- penses	512	1,161	232.16	249.57	268.37	288.34	309.93	333.38	358.22	
2003/04 prices) er year (Rs. )	14,256	68,215	13,642.99	14,666.22	15,771.30	16,944.60	18,213.40	19,591.34	21,051.14	8
				<b>Total</b>	<b>91,571.77</b>		<b>for 200,000</b>			

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

### Scenario 3: 100,000 LHWs

#### Table G.7 Using the LHSs' salaries (2007/08) and drivers' salaries (January 2008)

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 100,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09
Management and monitoring	1,196	2,714	271.35	291.70	313.68	337.02	362.26	520.20	418.70	
Supervision		6,999	699.90	752.39	809.08	869.28	934.37	1,341.75	1,079.95	
Stipends		35,880	3,588.00	3,857.10	4,147.73	4,456.30	4,789.98	6,878.41	5,536.28	
Transportation of medicines and other items	49	111	11.11	11.95	12.85	13.80	14.84	21.31	17.15	
Repair of office building and house	64	145	14.46	15.55	16.72	17.96	19.31	27.73	22.32	
Capacity-building (skill development of LHWs and drivers)	892	2,023	202.27	217.44	233.82	251.21	270.02	387.76	312.10	
Procurement of drugs and supplies	6,342	14,385	1,438.46	1,546.35	1,662.86	1,786.57	1,920.35	2,757.62	2,219.55	
Procurement of vehicles	1,623	3,681	368.14	395.75	425.57	457.23	491.47	705.75	568.05	
Procurement of other assets	45	101	10.15	10.91	11.73	12.60	13.55	19.45	15.66	
Investment in Information Systems (HMIS/computer equipment)	31	71	7.08	7.61	8.18	8.79	9.45	13.57	10.92	
Health promotion campaign/Health education campaign	556	1,260	126.04	135.49	145.70	156.54	168.27	241.63	194.48	
Repairs and maintenance of fixed assets other than vehicles	28	65	6.46	6.95	7.47	8.03	8.63	12.39	9.97	
Research and pilot studies	30	69	6.87	7.38	7.94	8.53	9.17	13.16	10.59	
Collaboration with NGOs	38	87	8.67	9.32	10.03	10.77	11.58	16.63	13.38	

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 100,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09
ainment charges	6	14	1.37	1.48	1.59	1.71	1.83	2.63	2.12	
gencies/operating ses	512	1,161	116.08	124.78	134.19	144.17	154.96	222.53	179.11	
2003/04 prices) total ar (Rs. million)	11,413	68,764	6,876.42	7,392.15	7,949.14	8,540.51	9,180.02	13,182.51	10,610.31	
			<b>Total</b>	<b>49,462.50</b>		<b>for 100,000</b>				

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Figure G.8 Scenario 3: 150,000 LHWs

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 150,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09/10
				1.075	1.156	1.242297	1.335469	1.435629	1.543302	
Management and training	1,196	2,714	407.03	437.56	470.52	505.53	543.38	780.30	628.04	2,714
Supervision	2,844	6,999	1,049.85	1,128.59	1,213.63	1,303.91	1,401.55	2,012.63	1,619.92	7,000
Stipends		35,880	5,382.00	5,785.65	6,221.59	6,684.44	7,184.97	10,317.62	8,304.43	36,100
Transportation of LHWs and other items	49	111	16.67	17.92	19.27	20.71	22.26	31.96	25.72	111
Construction of office building and house	64	145	21.70	23.32	25.08	26.95	28.96	41.59	33.48	145
Construction of city-building (skill development of LHWs and NGOs)	892	2,023	303.40	326.15	350.73	376.82	405.04	581.63	468.14	2,023
Costs of drugs and contraceptives	6,342	14,385	2,157.70	2,319.52	2,494.30	2,679.86	2,880.52	4,136.43	3,329.32	14,385
Replacement of vehicles	1,623	3,681	552.22	593.63	638.36	685.85	737.21	1,058.63	852.07	3,681
Replacement of other assets	45	101	15.22	16.36	17.60	18.90	20.32	29.18	23.49	101
Communications computer equipment	31	71	10.61	11.41	12.27	13.18	14.17	20.35	16.38	71
Health promotion campaign/Health education campaign	556	1,260	189.06	203.24	218.56	234.81	252.40	362.44	291.72	1,260
Repairs and maintenance of physical assets other than vehicles	28	65	9.69	10.42	11.20	12.04	12.94	18.58	14.96	65
Research and pilot studies	30	69	10.30	11.07	11.90	12.79	13.75	19.74	15.89	69
Cooperation with NGOs	38	87	13.01	13.99	15.04	16.16	17.37	24.94	20.07	87

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 150,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	Total 09/10
ainment charges	6	14	2.06	2.21	2.38	2.56	2.75	3.95	3.18	
gencies/operating ses	512	1,161	174.12	187.18	201.28	216.25	232.45	333.79	268.66	1,1
2003/04 prices) total ar Rs. Millions	14,256	68,764	10,314.63	11,088.23	11,923.71	12,810.77	13,770.03	19,773.76	15,915.47	69,3
			<b>Total</b>		<b>74193.74</b>		<b>for 150,000</b>			

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.

Table G.9 Scenario 3: 200,00 LHWs

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 200,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
				1.075	1.156	1.242297	1.335469	1.435629	1.543302
Management and monitoring	1,196	2,714	542.70	583.41	627.37	674.04	724.51	1,040.40	837.39
Supervision	2,844	6,999	1,399.80	1,504.79	1,618.17	1,738.55	1,868.73	2,683.50	2,159.89
Stipends		35,880	7,176.00	7,714.20	8,295.46	8,912.59	9,579.96	13,756.82	11,072.57
Transportation of medicines and equipment	49	111	22.23	23.89	25.70	27.61	29.67	42.61	34.30
Construction of office Building and warehouse	64	145	28.93	31.10	33.44	35.93	38.62	55.45	44.63
Capacity-building (skill development of LHWs and supervisors)	892	2,023	404.53	434.87	467.64	502.43	540.05	775.51	624.19
Procurement of drugs and diagnostics	6,342	14,385	2,876.93	3,092.70	3,325.73	3,573.14	3,840.70	5,515.24	4,439.10
Procurement of vehicles	1,623	3,681	736.29	791.51	851.15	914.47	982.94	1,411.51	1,136.09
Procurement of other assets	45	101	20.29	21.82	23.46	25.21	27.09	38.91	31.31
Investment in Information Systems (HMIS/computer equipment)	31	71	14.15	15.21	16.36	17.58	18.89	27.13	21.84
Health promotion campaign/Health education campaign	556	1,260	252.08	270.99	291.41	313.09	336.53	483.26	388.96
Repairs and maintenance of physical assets other than vehicles	28	65	12.92	13.89	14.94	16.05	17.25	24.78	19.94
Research and pilot studies	30	69	13.73	14.76	15.87	17.05	18.33	26.32	21.19
Collaboration with NGOs	38	87	17.35	18.65	20.05	21.54	23.16	33.25	26.77
Contingency charges	6	14	2.75	2.95	3.17	3.41	3.67	5.26	4.24

	PC-1 budget in 2007/08 prices to purchase 88,180 (Rs. million)	Planned average cost per planned LHW in 2007/08 prices (Rs.)	The budget for 200,000 LHWs in 2007/08 prices	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	
agencies/operating ses	512	1,161	232.16	249.57	268.37	288.34	309.93	445.06	358.22	1,
2003/04 prices) total per (Rs. million)	14,256	68,764	13,752.84	14,784.30	15,898.28	17,081.03	18,360.04	26,365.02	21,220.63	92,
				<b>Total</b>	<b>98,924.99</b>		<b>for 200,000</b>			

Source: OPM LHWP 4th Independent Evaluation, Quantitative Survey Data, 2008.