Original Article

Lady health workers programme in Pakistan: challenges, achievements and the way forward

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Abstract

Objectives: To review the Lady Health Workers programme and critically explore various aspects of the process to extract tangible implications for other similar situations.

Methods: A descriptive study was carried out over a period of one year (2007-08). A detailed desk review of project documents, interaction with relevant stakeholders, performance validation and extensive feedback from the community were collected. The data so obtained was analyzed and evaluated against predetermined benchmarks.

Results: Each LHW serves a population of 1,000 people in the community and extends her services in the catchment population through monthly home visits. The scope of work includes over 20 tasks covering all aspects of maternal, newborn and child care. Total cost incurred on each worker is averaged at PKR 44,000 (US $ 570) per anum.Almost 60% of the total population of Pakistan, mostly rural, is covered by the programme with more than 90,000 LHWs allover the country. The health indicators are significantly better than the national average, in the areas served by the LHWs.

Conclusions: The LHW programme has led to a development of a very well placed cader that links first level care facilities to the community thus improving the delivery of primary health care services. However, despite its success and the trust it has earned from the community, there are certain areas which need special attention which include poor support from sub-optimal functional health facilities, financial constraints and political interference leading to management issues. The future carries a number of challenges for management of the programme which have been highlighted.

Keywords: Lady health workers, Maternal care, Childcare, Primary health care, Health facilities (JPMA 61:210; 2011).

Introduction

In 1978, the World Health Organization (WHO) and UNICEF convened a conference on Primary Health Care (PHC) at Alma Ata (USSR). In this gathering the governments of 134 countries as well as non-government stakeholders were brought together to reset the international health agenda. The Alma Ata declaration noted that PHC must, therefore, "evolve from the economic conditions and socio-cultural and political characteristics of the country and its communities."[1] Hence, the countries signatory to Alma Ata declaration considered the establishment of community health workers programme synonymous with PHC approach. As a result, in 1980s PHC approach was seen as a mass production activity for training community health workers in several developing countries. Nevertheless, the conception and activities of community health workers have varied tremendously across developing and developed countries due to their aspirations and economic capacity.

Similar to other developing countries, Pakistan too had poor health indicators in terms of maternal and child health, during 1970s and 1980s.[2] There was a lack of communication between the communities and the health system. Moreover, despite meager resources a major chunk was being spent on tertiary care thus neglecting primary health care and the rural population.[3] Consequent to the above facts and being a signatory to Alma Ata declaration, Government of Pakistan with support from WHO, also showed its commitment by launching a community health workers programme known as the "National Programme for Family Planning and Primary Health Care (FP&PHC)" in 1994. The Programme popularly known as "Lady Health Workers Programme" (LHWP), has been able to muster community participation through creation of awareness and bringing about changes in attitude regarding basic issues of health and family planning by establishing a comprehensive grass roots level effective system for provision of primary health care.[3,4] An external evaluation of the programme was undertaken in 2000-01 by an international firm (Oxford Policy Management) corroborating the strength of its implementation and the challenges to be addressed.[5] A number of other studies, including internal assessment were also carried out on specific aspects of LHW work contributing to its development process.[6-13] The present study was undertaken to review the whole programme in order to critically explore various aspects of the process to extract

tangible implications for other similar situations. The specific objectives of the study were:

To assess the contribution of the LHWP in enhancing coverage and access of health care services as well as towards improvement of health indicators.

◆ To analyze various factors affecting the success and sustainability of large scale community based initiatives in developing country settings.

Methodology

A descriptive study was carried out over a period of one year (2007-08) and following steps were undertaken to review and analyze the process:

◆ Desk review of project documents, financial outlay, various evaluations, MIS reports, literature search and other relevant papers.

◆ Interviews, formal and informal interactions and discussions with all the stakeholders including government ministries, line departments, international organizations, NGOs, and others.

◆ Performance validation exercises in the field by various methods at multiple occasions.

◆ Feedback from community being served by the programme

All this information was compiled covering two broad areas i.e. programme implementation and programme performance. A critical analysis was carried out by the authors systematically to bring out salient features in the two domains in order to reach perceptible conclusions.

Results

The overall goal of the LHWP was to contribute to poverty reduction by improving the health of the people of Pakistan. The main objective was to increase utilization of promotive, preventive and curative services at the community level particularly for women and children in poor and underserved areas. In order to achieve these aims and objectives, the Programme recruited women (LHWs) and trained them to provide family planning services and primary health care in their own communities.[4]

Programme design and implementation:

The LHWs are recruited through a well defined process according to strict selection criteria, which is, age

Table-1: Tasks of LHWs.

Stipulated tasks of LHWs	Additional tasks undertaken by LHWs
1. To register and educate all eligible couples, in the catchment population, about family planning methods 2. To distribute oral contraceptives pills, condoms and Injectable contraceptives to eligible couples 3. To facilitate IUD and surgery from nearest centers for eligible couples 4. To maintain a register of all pregnant mothers and children under 5 years in the catchment population 5. To look after pregnant mothers and issue them with pregnancy cards 6. To provide iron and folic acid tablets for pregnant mothers and women of reproductive age. 7. To encourage and facilitate antenatal, birth and post natal care by a skilled birth attendant (SBA). 8. To facilitate Expanded program of immunization 9. To provide basic treatment and appropriate referrals for children with diarrhoea and acute respiratory infections 10. To raise awareness about balanced nutrition 11. To educate women of all ages on common ailments 12. Encourage breastfeeding and complimentary feeding 13. Health education through growth monitoring of children 14. To promote use of iodized salt in the community 15. To provide treatment for common ailments 16. To provide awareness on prevention from Malaria and TB and participate in DOTS management 17. To provide awareness on prevention and control of HIV/AIDS and STDs 18. To promote principals of basic hygiene 19. To prepare and submit a monthly report about her work, on a structured proformas, to the attached health facility (FLCF) 20. To maintain a close liaison with the Lady Health Supervisor (LHS) 21. To provide medicine/supplies provided by the government, to the catchment population 22. To maintain close liaison with the attached health facility for Skill training, Supplies and Supervision (3 Ss) as well as for referral.	◆ Immunization - NIDs: About 20 million polio doses were administered by LHWs - MNT: LHWs role was recognized in the success of neonatal tetanus elimination campaign and they vaccinated hard to reach groups of women in difficult areas - Measles campaign: In the recent nationwide measles' elimination campaign almost 100% coverage was achieved by involving LHWs. ◆ Emergency relief activities - Earth quake relief 2006 - Flood relief 2007-8 ◆ TB DOTS: LHWs play a vital role in case detection and case retention to enhance treatment completion and cure rates. ◆ Malaria control: RBM programme utilizes LHWs in various malaria control activites. ◆ Innovations: Various innovations have been introduced in the programme after pilot testing through LHWs to extend these PHC services to the community.

◆ DOTS; Directly Observed Therapy Strategy, STD: Sexually Transmitted Diseases, FLCF: First Level Care Facilty, NID: Natioanl Immunization Days, MNT: Maternal Neonatal Tetaus, RBM: Roll Back Malaria, PHC: Primary Health Care

Table-2: Comparison of key health indicators.

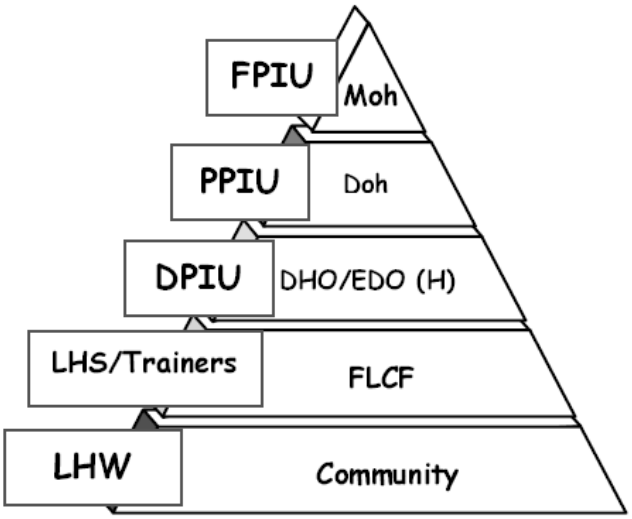
Indicators	1994*	National (2007) PSLM/PDHS**$	LHWs area (2007) LHW-MIS#	MDG Target (2015)@
Contraceptive Prevalence Rate (CPR)	11 %	30%	42%	55 %
Fully Immunized Children	75 %	47%	80%	>90 %
Skilled Birth Attendance (SBA)	22%	39%	51%	90%
Infant Mortality Rate (IMR)	105	78	49	40
Maternal Mortality Ratio (MMR)	500	276	180	140

* The Sate of the World's Children; 1st ed.. NY 10017, USA: Unicef; 1994.
** Pakistan Social & Living Standards Measurement Survey (PSLM). Federal Bureau of Statistics, Statistics Division, Government of Pakistan; 2006.
$ Pakistan Demographic & Health Survey (PDHS). 1st ed.. Islamabad, Pakistan: National Institute of Population studies and Macro International Inc.; 2007.
# Lady Health Worker (LHW) Management Information Systems (MIS), Islamabad, Pakistan: Ministry of Health, Government of Pakistan; 2006.
@ Pakistan MDG Report. 1st ed.. Islamabad, Pakistan: Planning Commission, Government of Pakistan; 2005.

between 18-45 years, being a local resident, at least 8 years of schooling, preferably married, and being acceptable to the community. Recruitment of LHWs is followed by 15 months of basic training at the First Level Care Facility (Basic Health Unit and Rural Health Center) or Tehsil headquarter hospital, by the staff working over there in two phases, using Programme training manuals and curriculum. The first phase of basic training is of five days a week for three months. The second phase of training lasts for 12 months with three weeks of field work followed by one week of classroom training each month. The basic training of the LHWs is complemented by one day "Continuing Education Session" each month and 15 days "Refresher Training" on various topics every year.

One LHW is responsible for approximately 1000 people, or 150 homes, and visits 5 to 7 houses daily. The scope of work and responsibility of LHW includes over 20 tasks, ranging from health education in terms of antenatal care and referral, immunization services and support to community mobilization, provision of family planning and basic curative care (Table-1). In addition, the house of each LHW has been declared as a Health House where people can come in case of emergency to receive basic treatment or guidance. The LHWs are also accountable for maintaining comprehensive records for all patients under their charge by updating family register at the health house to reflect medical histories and health conditions of each member. Moreover, they also send their monthly reports containing information about indicators of maternal and child health, family planning and basic curative care. Hence, this meticulous record keeping allows for the LHWs to keep track of individuals in order to proactively provide services. Quality of care by the LHWs is maintained through a well established supervisory network from the community up to the Federal level. The monitoring and supervisory cadres include Lady Health Supervisors at a ratio of 1:20-25 LHWs, Field Programme Officers and the management setup at the District, Provincial and Federal level. Currently, approximately 93,000 LHWs are working across all the districts of Pakistan, providing PHC services to the population of rural and urban slum areas. Each LHW is supplied with basic items for her health house and essential drugs to treat minor ailments in addition to contraceptives. All of these contraceptives and supplies are provided free of cost, to the population, in the catchment area of each LHW. The procurement system for these supplies is central. However, the demand is generated from districts and a consolidated tender for drugs, non drug items and stationary is advertised annually from the federal office. In the last project period, the average cost of each LHW was approximately Pak Rs 44,000 (US$ 570 approx) per year. This included their salary (more than 50% of the total), medicine and supplies, management costs, supervision and training costs for the whole year. The entire budget was provided by the government of Pakistan.

The Programme design is such that it has a strong network of implementation units at federal, provincial and district levels (Figure). The structure is well defined in its



FPIU- Federal Project Implementation Unit. PPIU- Provicial Project Implementation Unit. DPIU- District Project Implementation Unit. LHS- Lady Health Supervisor. LHW- Lady health Worker. MOH- Ministry of Health. DOH- Department of Health. DHO- District Health Officer. EDO- Executive District Officer. FLCF- First Level Care Facility.

Figure: Management structure of the programme.

Table-3: Performance of LHWs in key areas of work.

S No	Area of Wrok	Indicator	Result	Source
1	Family Planning	◆ Net effect of LHWP on use of reversible modern method of contraception	◆ OR 1.50 (95% CI 1.04-2.16) P = 0.031	Douthwaite & Ward 6
2	Child Health	◆ Mean No of encounters with Acute Respiratoy Infection (ARI), diarrhoea and fever	◆ 17 encounters/month	FPO Survey 7
		◆ Knowledge & skills in Integrated Management Newborn Childhood Illnesses (IMNCI)	◆ Satisfactory but need improvement in certain areas	
3	Maternal Health	◆ Antenatal care	◆ Satisfactory	FPO Survey7

responsibilities at each level and is strongly linked with the district and provincial governments. The Programme is headed by a National Coordinator, who is placed at the federal programme implementation unit. In its current structure, the Programme can be seen to be centrally funded and directed from the Federal level, but the key operational decisions are taken at the provincial, district and even up to health facility and community levels. These operational decisions have a major impact both on the efficiency with which services are delivered and their impact on health outcomes.

Performance of the programme:

A recent demographic and health survey (2006-2007) has shown a significant fall both in maternal and in childhood mortality in Pakistan. The improvement is more prominent in the LHW covered areas when a comparison is made between indicators as IMR, MMR, CPR and others between the LHW covered areas and the national average (Table-2). A national external evaluation of 2000-01 analyzed the LHWs' performance and reported that 97% of LHWs had passed the 8th grade or higher; all had received extensive training; each LHW visited an average of 23 households per week providing 50% of all the contraceptives used; 20% of individuals had contacted their local LHW during illness and 70% of them had provided assistance during emergencies within three months of the survey, in services that include delivery, complications of pregnancy, and respiratory infections. The evaluation also reported that after controlling for other factors, use of reversible modern methods was higher in LHWP areas than in control areas (OR = 1.50, 95% CI = 1.04 - 2.16, p = 0.031). The programme used the WHO case management guidelines to classify pneumonia and treat fever presumptively with the help of charts and provided kit. Currently another national third party evaluation is underway and the results will be available soon. Salient results of a number of other studies carried out on specific aspects of LHW work are illustrated in Table-3.

Discussion and Conclusions

Primary Health Care (PHC) is globally acknowledged as the best model for the delivery of equitable and comprehensive essential services particularly for the underprivileged low-income communities.[14-17] Pakistan has a nationwide health infrastructure network with thousands of first level care facilities, yet over the years, health indicators including those related to MDGs have not shown tangible improvement, reflecting the weak performance of the health system and the low health seeking behaviour linked to gender related cultural immobility that hinder access to catchment area health facilities.[18,19]

To overcome these impediments, and effectively respond to the health needs of its rural population and urban poor, Pakistan created the cadre of LHWs in 1994, predominantly based at village level.[20,21] Despite initial skepticism from most health professionals and donor communities as regards the viability of recruiting effective female health workers from conservative rural societies, the programme was replicated successfully, following an effective pilot experience jointly conducted by the Ministry of Health (MoH) and World Health Organization (WHO).[21-23] The LHWs' unlimited access to households, free interaction with local women and their proven high level acceptability have rendered them appropriate and reliable MNCH service providers at the community level.[21,22] Gradually, LHWs broke the vicious circle of decades of village women's poor health care seeking behaviour and their delayed access to essential care often resulting in poor MNCH indicators. The effectiveness of this initiative was substantiated by the ease with which LHWs perform their regular home visits and deliver promotive, preventive and simple but essential curative home health care services with greater focus on MNCH; by their knowledge and skills of antenatal care, and of the most common diseases encountered among the under 5 children population i.e. diarrhoea, respiratory tract infections and fever; by eagerly managing anaemia, early initiation of breastfeeding and childhood feeding, and immunization and by their ability to provide confidential counseling to married women on reproductive health and family planning and directly distributing contraceptives. Additional roles carried out by LHWs include conducting antenatal care during home visits; promoting and

monitoring the use of skilled birth attendants (SBAs) and encouraging families and communities to timely access available referral Emergency Obstetric and Neonatal Care (EmONC) services. Moreover, although the Oxford third party evaluation could not associate the observed decreased measures of child morbidity in LHWs covered areas with an impact on IMR, the beneficial results of community based PHC were amply corroborated by the literature.[5, 11,16,17,24]

The large scale community acceptability of the LHWs' role and their phenomenal capacity to absorb additional skills and integrate these into their standardized regular service package, made them reliably indispensable team members for the effective delivery of key national interventions such as Polio Eradication Initiative (PEI), TB-Direct Observed Therapy Strategy (DOTS), malaria control, health emergency response activities, and disease surveillance. This new paradigm gave the district health system the opportunity to organize PHC services on an up scaled pace of implementation and made the expected desired outcome results more likely to be attained.

The positive impact of this initiative was substantiated by the reported 3-4 fold significant enhancement of contraceptive prevalence rate (CPR) in areas covered by LHWs relative to the baseline of 1994 and to their superiority over the nationally reported average performance levels. Similar improvements were attained in the EPI coverage, in the utilization of services of SBAs, along with tangible reductions in IMR and MMR. The effectiveness of LHW services was corroborated by several studies reporting the high potential that these workers had in impacting on MDGs-related indicators.[20-22,25]

The scientific literature concerning the role of CHWs has provided inconsistent results; at times doubting the added values of these workers,[26] while in other situations depicting the evidence of their successful contribution and positive impact on service delivery.[27] In Pakistan, the success of this initiative can be attributed to the programme design where the government has introduced the following key mutually synergistic managerial prerequisites considered essential for programme sustainability: i) Skills development where competencies are ensured to match the assigned package of services; ii) Supportive supervision performed by another mobile female cadre of health worker (the LHWs' Supervisor) with higher level of training and problem solving skills that assist and motivate LHWs to improve performance; iii) Supplies provision by distributing a monthly package of essential medicines and other basic supplies; iv) Offering regular refresher trainings that inculcate problem based learning and maintain competences and interpersonal communication; v) Disbursing a monthly government remuneration to supplement their family income, thus offering a status comparable to formally contracted employees; and vi) Ensuring community and family support from the selection and recruitment phase and throughout the programme implementation process. These characteristics are shared by other CHW programmes whose sustainable success and impact were firmly documented,[16] while other interventions reporting programmatic weaknesses were often associated with design imperfections that failed to recognize the relevance of these prerequisites, prompting an adverse impact on CHWs' motivation, focus, accountability, level of satisfaction and capacity to generate the desired benefits.[26]

Despite the obvious strengths of the programme to provide immediate effective response to the health needs of the population, several reported weaknesses that need to be addressed include irregular supply of drugs, delayed disbursement of remuneration, poor district health system referral support and no response to LHWs' expectations for higher financial compensation and career development.[9,28] Moreover, a need was felt to improve their communication skills and in their involvement in Basic Emergency Obstetric care services including mobilizing support for patient referral, while their regularization as permanent employees of the DHS was emphasized.[9,10]

It is evident, however, that this public sector community based initiative has contributed significantly by replacing decades old rural inaccessibility and inconveniences in accessing care with a cost-effective delivery system at the grass root level focused on population's genuine and felt health needs. To sustain the benefits of this national programme, the district health system in Pakistan has to generate reforms envisaging more appropriate resource allocation, better focus on equity, community participation and inter-sectoral action on social determinants of health, as it is unlikely for the LHW's programme alone to sustain these gains except as an integral component of a district health system operating in the framework of PHC.

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