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THE CONTRIBUTION OF LADY HEALTH WORKERS TOWARDS FAMILY PLANNING IN PAKISTAN

Family Planning Services Provided

Family planning is a major assignment for the Lady Health Workers (LHWs) and the program derives its name from it[1]. According to its 3rd external evaluation in 2000, the program had helped increase CPR in LHW covered areas from 11% in 1994 to 33% in 2000, which was considerably higher than the national average of 22%[2,3]. By 2008, ever and current use of family planning was nearly twice as high in LHW covered areas as those not covered by the LHWs.

However, compared to 2000, these rates remained somewhat unchanged in 2008 and the overall rates of FP use had become comparable to the national averages[4] from the (30% vs. 33%). The propensity score matching (which specific show the exact contribution of LHWs to FP) suggests that LHWs increase the chances of FP use in their areas by 5-11%.

Overall CPR in LHW Served Areas

While LHWs were responsible for a dramatic increase in CPR in areas they served from 1994 to 2000, the progress has been more modest thereafter and is not statistically significant.

FAMILY PLANNING TRENDS 2000 - 2008

CPR	2000	2008
Whole population	33	34
Rural	30	31
Urban	41	42

Uptake of Family Planning Services by LHW

Based on the Demographic and Health Survey (DHS) 2006-7, an estimated 2.9 million women reported receiving FP services in Pakistan. Of these, approximately 430,000 women reported receiving FP services from the LHWs. Most such women received condoms and pills, while only 10% of all clients were referred for female sterilization or IUDs, despite the fact that much of unmet need for family planning is for longer term methods and that public sector facilities that provide these services remain significantly underutilized.

CLIENTS SERVED BY LHWS IN DHS 2006-7

	Women Served	%
Condom	174,795	41%
Pill	139,657	33%
Injectables	72,682	17%
IUD (referrals)	34,714	8%
Female sterilization (referrals)	7,735	2%
Total	429,583	

SALIENT POINTS AND RECOMMENDATIONS

- Program particularly improves FP for poor women
- LHW Program serves approximately 430,000 women with FP services annually nationwide, at PKR 1392 (USD 23) annually
- LHWs spend 1.5 hours on family planning and visit 2 women per week
- Re-emphasizing information about FP commodities and side effects management in LHW training, ensuring timely and consistent supplies, ensuring that LHWs spend more time on family planning will help improve performance
- Better use including analysis of program data will improve loss of commodities and improve performance of LHWs in delivering FP services
- Use of checklists may be introduced to ensure that LHWs ask their clients about their FP needs and refer them for longer term methods when needed..

Knowledge of LHWs about Family Planning

The OPM team administered a questionnaire to all LHWs in 2000 and then again in 2008. While all LHWs know something (at least one correct answer) about FP methods they dispense, a third to nearly all have difficulty with more detailed answers (3 or more correct answers). This is particularly so for IUDs which the LHWs don't themselves provide but rather

KNOWLEDGE OF LHWs ABOUT FAMILY PLANNING

Measure	2000	2008
Contraindications for the contraceptive pill:	%	%
LHW giving at least one correct answer	98.2	98.3
LHW giving three or more correct answers	54.8	58.4
Contraindications for injectable contraceptives (%):		
LHW giving at least one correct answer	97.1	97.0
LHW giving three or more correct answers	51.0	53.9
Contraindications for the IUD (%):		
LHW giving at least one correct answer	97.4	87.5
LHW giving three or more correct answers	10.5	10.9

[1] The official name of the LHW Program is: The National Program for Family Planning and Primary Healthcare.

[2] Hakim A, Sultan M, Uddin F. 2001. Pakistan Reproductive Health and Family Planning Survey 2000–01. Islamabad: National Institute of Population Studies

[3] Douthwaite M and Ward P. Increasing contraceptive use in rural Pakistan: An evaluation of the LHW Program. Health Policy and Planning 2005. 20 (2) 117- 23

[4] Pakistan Demographic and Health Survey 2006-7.

provide referral to a government facility. Only 17% of the LHWs could answer more detailed questions about IUDs. These low levels of knowledge happen against the backdrop where LHWs don't counsel for side effects or contraindications, thus compounding the problem of appropriate use of contraceptives by their clients or what happens if their clients encounter side effects.

COMMUNITY SURVEY: FAMILY PLANNING INDICATORS		
(Currently married women aged 15–49)	Un-served	Served
Know where to obtain contraceptives	77	89
Have ever used any method	28	49
Using any method (CPR)	15	31
Currently using any modern method	10	25
Using any modern 'reversible' method	6	16
Current users of modern method of contraception received regular medical attendance for the method woman uses, if required by the method	22	16
Uses method supplied by LHW	n/a	54
Mean number of children desired (for self)	4.9	4.6
Mean number of children desired (for women in village/mohalla)	4.1	3.8

Survey of LHW Served Communities

Communities being served by the LHWs have a reasonably high awareness of FP and where to obtain FP methods. Around half have ever used a FP method, 31% are currently using some form of FP and 25% are using a modern FP method; all of which are comparable to the national averages from the DHS. Around half of modern method users reported receiving their method from an LHW and only 16% state that they had received medical attention required by their method from an LHW.

Women being served by LHWs feel that they want between 4 and 5 children but interestingly also feel that other women in their community should have fewer children.

More directly a propensity score matching technique was applied to the answers to seek out the specific influence of LHWs on promoting FP while holding factors constant. It appears that LHWs account for around a 10% increase in knowledge about the source of FP methods and 6% increase in ever use of FP. More importantly LHWs resulted in around 11% increased use of a modern FP method and since they only supply reversible methods, they are responsible for around 5% increase in the use of modern reversible methods.

IMPACT ON HEALTH PRACTICES IN FAMILY PLANNING (CURRENTLY MARRIED WOMEN AGED 15-49)	
Measure	Propensity Score Matching
Proportion who know where to obtain method of contraception	0.096
Proportion who have ever used any method	0.061
Proportion who are using any method (CPR)	0.084
Proportion who are currently using any modern method	**0.108**
Proportion who are using any modern 'reversible' method	0.054
Propensity Score Matching uses multiple regression analysis to assign specific attribution by adjusting for factors that may be common. In other words, PSM gives the probability of something happening while adjusting for confounders	

A further interpretation of these results that suggest that the increase in the proportion of those using any method of contraception (CPR) is less than the increase in those who are using modern methods of contraception. This may imply that the Program has successfully convinced those inclined to use FP to switch to a modern method of contraception, hence promoting substitution from traditional to modern methods of contraception, without a concomitant expansion of CPR.

LHW Impact on CPR by Wealth Quintiles

One of the main intentions of the LHW program has been to serve the poorest populations and some success was observed in this goal. The poorest groups (quintiles 4 and 5) among those served by the LHWs showed a higher propensity for using any modern FP method (11.4% vs. 8.6%) and a modern reversible method (8.5% vs. 2.7%) which are directly supplied by the LHWs.

CHANGE IN THE IMPACT OF FAMILY PLANNING SERVICES BY WEALTH QUINTILES		
Propensity Score Matching	Quintiles 1-3	Quintile 4-5
% know source to obtain method of contraception	0.122***	0.079*
% have ever used any method of contraception	0.087	0.052
% using any method of contraception (CPR)	0.096*	0.082
% using any modern method of contraception	0.086	0.114***
% using any modern 'reversible' method of contraception	0.027	0.085***
Notes: Coefficients in every line and every column come from a separate estimation. All estimates take into account sample weights. Significance levels are indicated using the following notation: *10 percent, **5 percent and ***1 percent		

Family Planning Service Delivery

The table below shows that in 2008, the time allocated by the LHWs to family planning is around 1.35 hours a week or around 9% of their service time. Although this allocation represents a drop from the 12.8% of time allocated to FP in 2000, however since the total service time has expanded in 2008, in real terms LHWs spend about the same time as they did in 2000. By this proportion, an LHW serves around 2.4 household and 1.9 patients per week.

The average number of household visits made per week has dropped from 3.2 in 2000 to 2.4 in 2008.

SERVICE DELIVERY BY LHWs		
Measure	2000	2008
Actual reported figures from the report		
Total hours worked every week	20.1	29.5
Time spent on visits and seeing patients (hours)	n/a	15.5 (53%)
Time spent on NIDs (hours)		6.8 (23%)
Mean number of households visits made	25	26.8
Mean number of patients/clients seen	n/a	21.8
Time allocated to FP per week (percent of patient time)		9%
Estimates		
Time allocated to FP per week (hours)	n/a	1.26
Household visits made in relation to FP	3.2	2.41
Average patients seen for FP services per week	n/a	1.96
Time spent per client for FP (minutes/week)		39

This can possibly be explained by recruitment of additional LHWs as the Program expanded into new FLCFs as well as new facilities in the old FLCFs during the period of evaluation as it resulted in reduced workload for each LHW who does not have to visit as many household as she did initially. And has, thus, been a driving force behind an increase in the level of service provision, apparent from the table above.

Supplies and Stock-Outs

In addition to counseling, LHWs provide condoms, injectables and oral contraceptive pills, therefore, having sufficient stocks of these commodities and minimizing stock-outs is important. In 2008, around 67% of LHWs had condoms in stock, 24% had injections and 78% had oral pills. In all of these categories, there was a slight improvement from 2000. While a fifth or more LHW did not have any current supplies of FP commodities, 3% reported not having any condoms for over 3 months, 16% had no injections and 1% had no pills for a quarter of a year. While having supplies is significant in maintaining confidence of clients that their methods would be available from the LHW, avoiding stock-outs is also important for the LHW who may ration supplies if she faces chronic and unpredictable stock-outs.

STOCK SITUATION OF LHWs					
	LHWs with item in stock (%)		LHWs out of stock for >3 months (%)		Units
	2000	2008	2000	2008	
Condoms	55	67	22	3	Piece
Injectables	–	24	–	16	Injection
Oral pills	73	78	11	1	Cycle
Mean (excl. injectables)	41	53	32	8.6	

In fact LHW reported giving an average of 20 condoms, 0.2 injections 2.7 pills in the week prior to the survey. If applied to the whole year, these come to 9 women served with a year's supply of condoms, 2.6 with injections and 11 with pills or around 23 women served by each LHW for a year with contraception commodities or around 2.3 million women served by the LHW program nationwide. This contrasts with the DHS data which suggests that approximately 430,000 women (or 4 per LHW) reported having received their supplies from an LHW. Since according to the DHS 2006-7 only around 2.9 million receive any FP services annually in Pakistan and LHWs account for around 8% of this total, there is clearly a discrepancy between the amount LHWs are reporting that they are dispensing, what their clients are reporting receiving from them and the stock situation of the LHWs.

Institutional Mechanisms to Ensure Service Quality

The program has robust means to measure and track performance of LHWs. Performance is measured using scorecards and this information is routinely collected by Lady Health Supervisors. In principle retention of LHWs depends on how well they perform on this scorecard with a requirement of a minimum of 70% score for continued employment. The survey found that 74% scored above this level. It is worth noting that family planning constitutes 6 out of 28 points or around 21% of the score. Half of this 21% is for basic knowledge (one correct answer) about FP, methods and contraindications and the remaining half about detailed knowledge (3 or more correct answers). Additionally, very few LHWs have been let go for not meeting quality standards.

DISPENSING PATTERNS OF LHWs					
Item	Dispensing units	Mean amount dispensed last week		Mean Annual Amounts of contraceptive estimated from weekly average	
		2000	2008	2000	2008
Condoms	Piece	9.8	20.1	4.25	8.71
Injectables	Injection	–	0.2	-	2.60
Oral pills	Cycle	2.3	2.7	9.20	10.80

Referrals are crucial in family planning services since LHWs only provide condoms, pills and injections, while their clients requiring crucial longer term services such as IUD placement or sterilization must be referred. There seems little evidence that many women are referred for family planning services. More concerning is the fact that only around half of the first level care facilities such as the basic health units where the LHWs would refer patients to even stock family planning supplies including IUDs.

Funding for LHW Program and Family Planning

The overall expenditure for the program for the 2003-9 period was Rs. 23.75 billion or around Rs. 4.75 billion (USD 79 million) annually that the government met largely without external support. These funds supported 99,444 LHWs and 3,551 LHS along with operating expenses.

Despite this large commitment of the Government of Pakistan to serve indigent populations, remuneration

of LHWs were released late very often. For example, only 21% LHWs reported receiving their remuneration within the month prior to the OPM survey, 45% between 1 and 2 months ago, 21% between 2 and 3 months ago and 10% over 3 months ago. Similarly late payments also impacted supplies that the LHWs receive.

Costs per women served by the LHW Program

In the 2003-8, the LHW Program was allocated a budget of PKR 5.3 billion per year. Based on the 9% time that LHWs spend on FP, the LHW program spent PKR 478 million on FP annually, with the average cost of FP services per woman served per year of PKR 1392 (USD 23). These are high compared to regional or some national NGO costs of USD 3-6.

Conclusions of Family Planning Services by LHWs

- LHWs serve an important role in providing family planning services, particularly to the poorest women.
- Overall they were instrumental in improving CPR nationwide from 1993 to 2000. Thereafter, gains have been more difficult to achieve.
- Since 2000, overall CPR in LHW covered areas increased from 33% to 34% nationwide (30% to 31% in rural areas and 41% to 42% in urban locations).
- Within their areas, LHWs were instrumental in increasing the use of any FP by 8% and for a modern reversible method (i.e. the kind provided by LHWs) by 5% compared to LHW non-served areas when adjusted for all contributing factors.
- LHWs work around 29.5 hours a week and of this they devote around 1.26 hours to FP and visit 2 women for this purpose.
- A third of LHWs reported current stock-outs for condoms and a fifth for oral pills which are the mainstay of FP supplies by the LHWs.
- The amount of supplies reported as dispensed by LHWs exceeds community uptake data by a factor of 6 fold.
- There appear to be no mechanisms to ensure that LHWs ask women about their FP needs or to ensure women for long term or permanent methods. The limited time spent on FP, the few women seen per week and the level of stock-outs are likely to have contributed to the limited progress the program has made during the past decade in family planning.
- Since the primary goal of the Program is Family Planning, the score allocated to Family Planning on the performance scorecard must be increased.
- Better programming may include development of institutional mechanisms such as checklists to ensure that LHWs ask about clients FP preferences and revisit these choices once or twice a year since they may change.
- There is a need to ensure that remuneration to LHWs and their supplies of family planning commodities remain uninterrupted for the LHWs as well as for the facilities that LHWs refer to.

Acknowledgement

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