

# THE CONTRIBUTION OF LADY HEALTH WORKERS TOWARDS IMMUNIZATION IN PAKISTAN

## Introduction

Lady Health Workers (LHWs) are responsible for the promotion and facilitation of child immunization besides other primary health care services. The LHWs, however, reported seeing zero cases related to routine immunization of children. Interestingly, they do serve as active vaccinators and mobilizers during National Immunization Days (NIDs) and other supplemental campaigns.

The Lady Health Worker Program set out immunization coverage targets for urban and rural populations; 90% and 80% respectively. While there has been an increase in the overall coverage of vaccination from 2000 till 2008, set targets have still not been achieved.

## Overall Coverage in LHW Served Areas

The LHW Programme helped increase the percentage of fully vaccinated children (12 to 35 months) from 57% in 2000 to 68% in 2008 in the served population<sup>1</sup>. National coverage rates of fully immunized children, however, are much lower at 47%<sup>2</sup>. Although immunization statistics in LHW served areas are somewhat encouraging, coverage still needs to expand nationally in order to meet WHO<sup>3</sup> targets as well as justify the magnitude of capital and human resources being allocated and utilized for immunization.

**TABLE 1: TRENDS IN OVERALL COVERAGE OF VACCINATION IN LHW COVERED AREAS**

Children aged 12-35 months fully vaccinated (based on recall and record) (%)	2000	2008	% change
Served Population	57	68	19.30
Rural	56	64	14.30
Urban	60	81	35

## Survey of LHW Served Communities

Communities served by LHWs are at an advantage over un-served communities. More children aged 12 to 35 months (64%) in served communities are fully vaccinated compared with 46% in the un-served areas. Additionally, around 5-6% of children aged 12 to 35 months in served communities have not been administered BCG or polio

## SALIENT POINTS

- Overall coverage in LHW-served areas has improved since 2000; however, the coverage targets set by the program were not achieved
- The LHWs lack in-depth knowledge about vaccine schedule
- Mean hours spent working on NIDs is almost 25% of the total hours served
- LHWs spending significant amount of time on NIDs while no time is being spent on routine immunization
- Richer households were less likely to rely on LHWs for immunization.

drops before 12 months compared to 11-14% in un-served communities.

Furthermore, in areas covered by LHWs, children had a 7% more chance to be ever vaccinated compared to un-served areas, while the chance of being fully vaccinated was 16% greater for children in served vs. un-served areas. In fact served children are more likely to undertake BCG and polio drops in a timely manner.

The contribution of LHW programme in increasing BCG vaccination uptake appeared to be very small, as there was only a 5% greater chance of receiving BCG vaccine for children in served areas compared to un-served areas, since most parents acquired BCG vaccines for their children from other sources.

**TABLE 2: IMMUNIZATION INDICATORS OF SERVED AND UN-SERVED COMMUNITIES**

Immunization (Children aged 12-35 months)	Un-served (%)	Served (%)
Children ever been vaccinated	91	99
Children fully vaccinated (based on recall and record)	46	64
Children had BCG before age 12 months	86	94
Children had three or more time polio drops before age 12 months	89	95

## LHW Impact on Coverage by Consumption Quintiles

<sup>1</sup> Evaluation of LHW Program in 2008, Oxford Policy Management

<sup>2</sup> Pakistan Demographic and Health Survey 2006-7

<sup>3</sup> WHO targets: 80% coverage of fully immunized children

The analysis on the coverage of vaccines based on socio economic stratum provides interesting findings. Children belonging to the poorer households had a 22% greater chance to be fully vaccinated and 13.5 % more chance to receive BCG in a timely manner. Understandably, children from better off household had access to other health facilities for vaccination and, thus, did not rely on LHWs for them.

### Knowledge of LHWs about Immunization

A questionnaire administered to all LHWs in 2000 and 2008 tested their general knowledge on a particular topic related to their work. Out of a total of 28 points, 8 points were allocated to questions about all four vaccines and their doses<sup>4</sup>. While nearly all the LHWs could name all four vaccines and their correct number of doses, only three-fourth could give the correct ages for each dose in 2008. Vaccine schedule is, thus, an area that lacks in-depth knowledge and needs to be addressed at the initial training stage of LHWs. Nevertheless, the table shows significant improvements in the overall knowledge of LHWs since the third evaluation<sup>5</sup>.

**TABLE 3: KNOWLEDGE OF LHWs ABOUT IMMUNIZATION**

Measure	2000 %	2008 %
LHW who could name all 4 vaccines (BCG, DPT, polio, measles)	94	94
LHW identifying all 4 vaccines and correct number of doses	73	91
LHW able to identify all 4 vaccines, correct number of doses and ages for each dose	43	72

### Time Allocation

Taking part in National Immunization Days is a non-Program activity in which LHWs serve as mobilizers and vaccinators. The time invested in this activity is considerable, with an average of 9 days in the past three months representing over 10 percent of an LHW's available working days. Despite this additional responsibility, it was found that LHW performance was not negatively affected.

On average, every week LHWs invest about 6.8 hours in the immunization program; about a quarter of their weekly input of hours. This is a significant portion out of their total input of 30 hours per week on average considering that approximately 15 hours are spent on other activities including family planning. While the LHWP was primarily designed to provide family planning and other primary health care services, immunization is taking up a substantial amount of the allocated time.

<sup>4</sup> Immunization's contribution to the total score is 28%.

<sup>5</sup>Evaluation of LHW Programme 2000, Oxford Policy Management

This additional task comes with a bonus and could possibly justify the huge amount of time being spent on it; almost 80% of the LHWs were paid PKR 1,289 on average per month for NIDs.

Table 5 shows that participation in NIDs is not only an added bonus but this bonus exceeds the monthly remuneration for routine work in spite of putting in less number of hours into it.

LHWs are working hard to carry out their routine activities (including household visits, seeing patients at health house, accompanying referral cases and other administrative work); however, they remain seriously underpaid. This substantially brings down their motivation levels in promoting immunization routinely; apparent from zero cases last seen for routine immunization.

**TABLE 4: PARTICIPATION OF LHWs IN NATIONAL IMMUNIZATION DAYS**

	2008
Mean hours spent working on NIDs last week	6.8
Mean hours spent on NIDs training last week	0.8
LHWs participated in NIDs in last 3 months	81%
LHWs who participated in NIDs in last 3 months outside their catchment	60%
Mean number of days spent during last 3 months on NIDs	9
Mean number of days spent on NIDs per month	3
LHW available mean working days per month	23.2
Received extra payment for participating in NIDs	78%
Mean PKR received for participating in NIDs	1,289
LHWs received any amount from any NGO in last 3 months	6%
Mean PKR received from NGO in last 3 months	458

**TABLE 5: COMPARISON OF HOURLY WAGES OF LHWs**

Measure	Routine work	NIDs
Number of hours worked per week	22.7	6.8
Number of hours worked per month	98	29
Monthly Compensation (PKR, 2008)	3100	1289
Per hour rates (based on monthly remuneration) in PKR	<b>31.8</b>	<b>44.1</b>

### Conclusion

- LHWs were able to increase the coverage of fully immunized children (above the national average) to 68% in 2008 in program areas.

- While the served population had better coverage compared to un-served population, parents administered BCG vaccines to their children from other sources suggesting a limited role of LHWs in this regard.
- Only poorer households were more likely to be vaccinated by LHWs while children belonging to better off households did not rely on LHWs for vaccination.
- LHWs are lacking in in-depth vaccination knowledge, particularly about number of doses and the correct ages for vaccine administration.
- LHWs are spending significant amount of time on NIDs while no time is being spent on routine immunization. Despite participating in this non-Programme activity, their performance is not negatively affected.
- The significant amount of time being spent could possibly be due to the incentives that come along participation in NIDs; hourly wage of which exceeds the hourly wage of routine work.

Much of the data for this policy brief comes from the detailed report prepared by the Oxford Policy Management Group as part of the 4th External Evaluation of the LHW Program.

Other sources of data include the Pakistan Demographic and Health Survey 2006-7.

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