





**COUNTRY-LEVEL PROGRAMMES** 

2014

# Lady Health Workers in Pakistan

Improving access to health care for rural women and families

Pakistan continues to face considerable health challenges, and current progress lags behind international targets. The Lady Health Worker Programme (LHWP) aligns with the principles and values of Alma Ata by effectively establishing a grassroots-level system for the provision of primary care.

Lady Health Workers (LHWs) play a particularly important role for mothers and children by coordinating with traditional birth attendants and midwives to ensure that mothers receive adequate care.<sup>1</sup> Set within a highly patriarchal society, the LHWP has also created a springboard for female empowerment. As one of the largest community health worker (CHW) programmes in the world, the LHWP offers important lessons and may present a replicable CHW model to the global community.

### AUTHORS

NINA ZHU, Harvard School of Public Health ELIZABETH ALLEN, Harvard School of Public Health ANNIE KEARNS, Women and Health Initiative & Maternal Health Task Force JACQUELYN CAGLIA, Women and Health Initiative & Maternal Health Task Force RIFAT ATUN, Harvard School of Public Health

### **COUNTRY OVERVIEW**

Pakistan, a lower-middle income country, faces significant economic, governance, and security challenges to achieving sustainable development.<sup>2</sup> In recent years, the country has suffered from recurring natural disasters that have devastated the country's economy and population health.<sup>2</sup> Pakistan also bears the burden of looming debt and a fiscal deficit equivalent to 8% of the GDP.<sup>2</sup> The country's economy has recovered slightly in recent years, reaching a growth rate of 3.4% in 2014, though it still lags behind its peer countries.<sup>2</sup> The fraction of the population living below the poverty line declined from 34.5% in 2002 to 22.3% in 2006.<sup>2</sup> The most recent Human Development Report still ranks Pakistan number 146 out of 187 countries on the Human Development Index.<sup>3</sup>

### Figure 1: Map of Pakistan<sup>A</sup>



Pakistan's poor performance is attributed in part to its vast gender inequality in nearly all education, health, and economic indicators.<sup>2</sup> Pakistan's female workforce participation rate is 22.7% compared to 83.3% for men, and only 18.3% of women have a secondary or higher education.<sup>3</sup> However, there have been some improvements for women. The government's efforts to achieve gender equality are reflected in its national policies on women's health and development. These policies have led to a substantial decline in the average fertility rate, from 5.4 in 1990 to 3.26 in 2012,<sup>4</sup> enabling Pakistan to achieve a negative population growth projection.<sup>5</sup> Four major channels influence the health status of women: family, community, health care systems, and the state. Programmes including Primary Health Care and Family Planning and Maternal, Newborn and Child Health are implemented though all four channels to fulfil the government's commitment.<sup>6</sup>

Table 1 summarizes several socioeconomic and demographic indicators. At its current rate of progress, Pakistan is not likely to achieve the health-, poverty-, or education-related MDGs by 2015.<sup>7</sup>

### Table 1: Socioeconomic and demographic indicators

INDICATOR	PAKISTAN
Population (millions) <sup>8</sup>	184.5
Urban population (%) <sup>8</sup>	37.9
Population under 15 (%)⁵	34.31
Population median age (years) <sup>5</sup>	22.23
Household size (mean) <sup>8</sup>	6.8
Human Development Index (HDI) <sup>3</sup>	0.515
Gross national income (GNI) per capita (US\$)²	1,250
Gini coefficient <sup>3</sup>	30.0
Population below national poverty line (%) <sup>2</sup>	12.4
Primary school enrolment, net (% / % female) <sup>2</sup>	72.5 / 44.5
Years of schooling (mean) <sup>3</sup>	4.9
Literacy rate, adults ≥15 (%)⁵	54.9
Access to improved water source (% households) <sup>8</sup>	93.0

### **HEALTH SYSTEM**

### Governance and Organisation

In 2010, Pakistan's 18th Constitutional Amendment dissolved the Ministry of Health (MOH) and devolved managerial health responsibilities to local governments.<sup>9</sup> Pakistan is now the only country in the world without a national health system or equivalent.<sup>10</sup> This restructuring has caused substantial fragmentation within the health system. A recent review by Sania Nishtar, former Pakistani minister, and her colleagues found that Pakistan's health system suffers from poor governance capability, inconsistent policies, and limited implementation capacity.<sup>11</sup> Corruption also impedes Pakistan's regulatory mechanisms.<sup>11</sup>

### Financing

The government spends approximately 0.9% of the GDP on health, which amounts to \$9.31 per person per year.<sup>11</sup> This figure

## Table 2: Health and epidemiologic indicators

INDICATOR	PAKISTAN	
Average life expectancy at birth (years) <sup>2</sup>	66	
Physicians (per 1,000 population) <sup>2</sup>	0.8	
Nurses and midwives (per 1,000 population) <sup>2</sup>	0.6	
HIV prevalence, adults 15–49 (%) <sup>5</sup>	<0.1	
Antiretroviral therapy coverage among people with advanced HIV infection (%) <sup>2</sup>	14	
Anti-retroviral therapy coverage in pregnant women living with HIV (%)	n/a	

is significantly below the international recommendation of \$60 per person per year.<sup>12</sup> Additionally, the government has done little to protect the population from catastrophic health expenditure, which remains the leading cause of economic shocks to low-income families.<sup>13</sup> Pakistan's health system includes five internal structures, each with different financing mechanisms, which cover small pockets of the population (retired military members, low-income workers, and formal sector employees). Combined, these structures cover just 21.92% of the population, leaving 78.08% to pay out-of-pocket for health services.<sup>11</sup>

Most primary care services (family planning, LHW's services and other programmes) are delivered at the community level for free.<sup>14</sup> However, healthcare revenue allocations are inequitable, with certain populations (military and government servicemen) covered by the publicly-financed system having access to some of the best health care services.<sup>11</sup> Additionally, the mechanism of revenue generation, which is primarily through taxes, does not provide sufficient funds to support an adequate health system; much of the population lives on less than US\$2 per day and so tax revenue is minimal.<sup>15</sup> Financial data collected to evaluate the LHWP found a funding shortfall to the programme of 39%. Expenditure on key inputs, such as contraceptives, vehicle maintenance, allowances and salaries, is well below planned amounts.<sup>16</sup> Inadequate financing has resulted in poor quality of care from public services.<sup>14</sup>

#### **Service delivery**

Pakistan's public health sector has a three-tiered service delivery system composed of primary, secondary and tertiary care.

Currently, there are approximately 13,051 primary care facilities<sup>11</sup> and 965 tertiary and secondary hospitals.<sup>17</sup> Since Pakistan's independence, population-to-health facility ratios have decreased from 28,971:1 to 12,357:1.11 However, the number of trained health workers has remained low, with just 1.4 nurses, midwives, and doctors per 1,000 people compared with an estimated 2.28 needed to mean a population's basic needs (Table 2).18 While HIV prevalence in the country is low, antiretrovirals are scarce and treatment is difficult to obtain. The health system continues to face issues of limited career advancement opportunities for the health workforce, lack of human resources, poor working environments, and inequitable resource allocation.<sup>19</sup> Thus, the vast majority of the population use services from the private sector, which accounts for 70-80% of all healthcare delivery.<sup>19</sup> In recent years, the government has tried to expand access to care and improve health outcomes by improving regulation of the private health sector, promoting gender equity, and reducing professional and managerial deficiencies in the district health system.

#### **Maternal and Child Health**

Though Pakistan has made some health improvements over the past several decades, these have been small in comparison to international targets. Since 1990, the under-five mortality rate has fallen from 138 to 86 deaths per 1,000 live births, and maternal mortality has declined from 490 to 260 deaths per 100,000 live births (Table 3).<sup>2</sup> However, Pakistan is still far from meeting the MDG targets and has the world's third-highest number of newborn deaths (194,000 in 2010).<sup>21</sup> Although some Pakistanis do have access to high-quality, world-class healthcare, statistics clearly reflect that prospects for the majority of the population are bleak. Nearly half of mothers and children are undernourished and over 1.5 million children are acutely malnourished.<sup>22</sup>

### THE LADY HEALTH WORKER PROGRAMME

In 1994, Pakistan's MOH implemented the Lady Health Worker Programme (LHWP) as part of a national strategy to reduce poverty and improve health by bringing health services to the doorsteps of underserved communities.<sup>23</sup> Rooted in the concept of primary care, the LHWP plays a key role in Pakistan's strategy to achieve the MDGs, strengthen its primary health care system, and achieve UHC (Figure 1). LHWs are expected to be agents of change within their communities by providing integrated preventative and curative health services to their neighbours. Their peer status enables them to connect with patients and navigate local customs, languages, and social relationships more effectively than outsiders.<sup>24</sup> In effect, these women are liaisons between the formal health system and their community. The MOH has currently deployed 110,000 LHWs, making it one of the largest CHW programmes in the world.<sup>24</sup>

## Table 3: Maternal and child health indicators

INDICATOR	PAKISTAN	
Total fertility rate (live births per woman) <sup>5</sup>	3.26	
Maternal mortality ratio (per 100,000 live births) <sup>5</sup>	170 (2010)	
Under-five mortality rate (per 1,000 live births) <sup>3</sup>	87	
Infant mortality rate (per 1,000 live births) <sup>3</sup>	70	
Neonatal mortality rate (per 1,000 live births) <sup>8</sup>	55	
Immunisation coverage, all basic, among 1-year-olds (%) <sup>8</sup>	43.0	
Contraception prevalence rate (% of married women 15–49) <sup>8</sup>	54.8	
Unmet need for family planning (%) <sup>5</sup>	25.2	
Age at first birth (median, women 25–49) <sup>8</sup>	22.2	
Antenatal care coverage, at least 1 visit / 4 visits (%) $^{\rm a,5}$	64.0 / 28.4	
Births attended by skilled provider $^{\rm b}$ (%) $^{\rm 5}$	45.0	
Births in a health facility (%) <sup>8</sup>	48.2	
Birth weight <2500g (%) <sup>8</sup>	25.0	
Births by Caesarean section (%) <sup>8</sup>	14.1	
Postnatal care visit within 2 days of birth (%) <sup>8</sup>	60.3	

a: Due to data limitations, it is not possible to determine the type of provider for each visit. Content of visit is not measured.

b: 'Skilled provider' is defined by the WHO as a doctor, nurse or midwife trained in life-saving obstetric care, as well as in providing care during pregnancy, childbirth and the postpartum period.<sup>20</sup>

Each LHW is associated with a government health facility within the community, where she receives training, a stipend, and medical supplies. LHWs are trained for 15 months in the prevention and treatment of common illnesses. The first three months take place in the classroom and the remaining 12 months are on-the-job training, excepting one day per month to work problem-based modules in the classroom.<sup>1</sup> LHWs do not receive leadership training outside managing patient records and prescriptions. LHWs register the population in their service area and target groups, such as children under five and couples eligible for family planning.<sup>1</sup> LHWs are each responsible for approximately 1,000 people within a catchment area of 200 houses. They work directly out of their homes, which are commonly called "health houses." The government has placed a specific focus on training LHWs from rural areas, which often have poor access to care.<sup>1</sup>

### Figure 1: Role of the LHW<sup>23</sup>

PROVIDE BAS				TIENTS TO
	LADY HEALT	Ή	WORKERS	
ORGANIZE COMMITT MEN AND	EES FOR		PUBLIC	UPTAKE OF HEALTH ATIVES

To be eligible to enter the LHW training programme, women must meet a strict set of minimum criteria. These include a recommendation from the community, at least eight years of education, possession of a middle school pass, local residency, preferably married, and at least 18 years of age.<sup>4</sup>

LHWs visit households to increase awareness on reproductive health and nutrition, facilitate registration of births and deaths, distribute medication for family planning and immunise children according to the national schedule.23 Basic maternal and child health services that they provide include reproductive health education, promotion of healthy behaviours, preventive care, family planning, HIV/AIDS care, and basic curative care. LHWs provide regular treatment for diarrhoea, malaria, acute respiratory tract infections, and intestinal worms, and offer contraceptives as part of family planning. They also play a role in expanding access to public health initiatives, such as the Expanded Programme on Immunisation (EPI). A 2009 study showed that an important reason that pregnant women do not seek ANC is its high cost, especially in private sectors.<sup>25</sup> Thus, LHWs advise their pregnant clients to seek ANC services in the public sector, even though care in the private sector is considered to be higher quality.<sup>26</sup>

LHWs visit households to increase awareness on reproductive health and nutrition, facilitate registration of births and deaths, distribute medication for family planning and immunise children according to the national schedule.<sup>23</sup>

LHWs play a particularly important role for mothers and children by coordinating with traditional birth attendants and midwives to ensure that mothers receive adequate care.<sup>1</sup> Each LHW is affiliated with either a rural health centre (RHC) or a basic health unit (BHU), where the LHW is trained and will refer her clients to. In an RHC or BHU, clients of LHWs can receive basic health care services. For more complicated conditions, LHWs are trained to refer patients to nearby clinics.<sup>1</sup>

The Government of Pakistan's commitment to addressing the country's most critical health concerns is evidenced by three major national strategies: The National Health Policy (2001), the Ten-year Perspective Development Plan (2001-2011), and the National Poverty Reduction Strategy.<sup>23</sup> The National Health Policy identified 10 priority areas, of which the LHWP addresses five.<sup>23</sup> These include reducing the prevalence of communicable diseases, addressing the inadequacies of primary/secondary health care services, bridging the gender equity gap, improving nutrition of vulnerable populations, and creating awareness of public health issues. At the programme's outset, the MOH financially supported the LHWP and worked in close collaboration with the Provincial and Regional Departments of Health; this responsibility fell to the district government after Pakistan's health care system reformation and decentralisation.<sup>1</sup> Prior to the passage of the 18th Amendment, the Secretary of Health, Planning Commission, and Ministry of Finance were responsible for monitoring the programme.<sup>23</sup> Under the Secretary of Health, the Director General of Health Services and Deputy Director General of Health and Planning and Development also assisted with managing the programme.

The LHWP was implemented through the Prime Minister's Programme for Family Planning and Primary Care and was set within the MOH, with implementation units at the federal, provincial, and district levels (FPIU, PPIU and DPIU) (Figure 2).<sup>23</sup> The MOH developed the programme with the aim of bridging urban and rural disparities and strengthening its weak primary health care system. Though there were initial concerns that communities would not accept LHWs, these women have successfully established themselves as important liaisons within the primary health care system.

### Figure 2: Integrated management of the LHW Programme<sup>27</sup>



The programme also has an independent monitoring system called the LHW Management Information System (MIS) that informs quarterly review meetings and provides analytical feedback on LHWs' health records.<sup>23</sup> The MIS records and transmits all LHW primary healthcare activities to the district, provincial, and federal management levels. This allows LHWs to keep track of the health status and needs of their catchment population and informs performance evaluation processes.

Numerous sectors have contributed to the viability of the LHWP. Donors were instrumental in developing training programmes and vaccination initiatives. Additionally, the World Health Organization (WHO) Country Office provided policy and strategic guidance, including help with developing manuals and training activities, improving supervision and monitoring, and building resource capacity.<sup>1</sup> The government continues to finance the majority of the programme, with only 11% coming from external funds.<sup>23</sup>

### MONITORING, EVALUATION, AND RESULTS

### Literature

The LHWP has successfully accelerated Pakistan's progress towards achieving universal health care and the health- and poverty-related MDGs, and has also contributed to closing Pakistan's gender equity gap. According to Oxford Policy Management, an external reviewer, the population served by LHWs has substantially better health indicators than that which is not.23 In particular, maternal and child health have dramatically improved through the increased uptake of antenatal (ANC) services, skilled assistance at birth, family planning, preventative child health services, treatment of childhood diseases, and breastfeeding advice.<sup>24</sup> The programme's fourth review reports that women served by LHWs, compared to those who are not, are 11% more likely to use modern contraception, 13% more likely to have a tetanus toxoid vaccination, and 15% more likely to attend a medical facility within 24 hours of birth and immunise children under three. A 2006 study in the Punjab province also showed that LHWs had helped reduce the maternal mortality rate from 350 to 250 deaths per 100,000 live births and the infant mortality rate from 250 to 79 per 1,000 live births.1 Door-to-door health promotion has improved dialogue within the health system.<sup>28</sup>

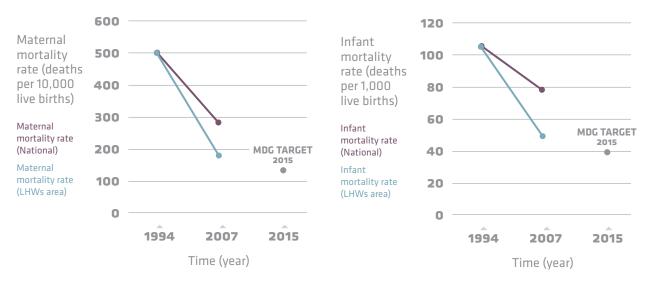
This impact has been greatest for the poorest and most underserved households and communities, which indicates that the programme is reaching its target populations, especially in relation to maternal and neonatal health practices, immunisation and growth monitoring.<sup>24</sup> By 2007, the programme had provided access to primary care for over half of the population in Pakistan including 60–70% of the rural population. Where other family planning approaches have failed, the LHWP has successfully increased the uptake of contraception among rural women.<sup>16</sup> In fact, between 1990 and 2000, contraception use more than doubled.<sup>16</sup> Additionally, while LHWs are not directly responsible for giving immunisations, they play a vital role in promoting and facilitating immunisation by connecting residents with facilities that do provide the service. In communities with the programme, LHWs have increased coverage of childhood immunisations from 57% in 2000 to 68% in 2008, while national coverage rates remain low at 47%.<sup>29</sup> It is also important to note that LHWs have successfully expanded coverage of priority public health initiatives, such as the Polio Eradication Initiative, TB-Direct Observed Therapy Strategy, malaria control, disease surveillance, and health emergency response activities.<sup>30</sup>

Much of the LHWP's success has come from the Lady Health Workers' ability to affect health-seeking behaviour. In 2009, a cohort study was conducted in the Punjab Province of Pakistan to investigate pregnant women's decision-making processes in choosing ANC and delivery service providers during pregnancy.<sup>25</sup> This study generated data about the cohort's decisions regarding whether to access certain services as well as the factors underlying each decision. Further analysis revealed that women's decisions were influenced by their social networks and those networks' contact with LHWs. LHWs were found to have an important impact on a woman's decision to use ANC services, specifically within the public sector. In fact, all of the pregnant women in the cohort study who were advised by LHWs at the beginning of pregnancy began using ANC services in the public sector during the first trimester, and continued doing so until delivery. When a system dynamics model was used to assess the effect of such decisions on neonatal health outcomes, the results showed that women using ANC services in the public sector experienced a 20.9% lower neonatal mortality rate compared to women using traditional services provided by *dhais* (*dhais*, an unregulated group of providers, use herbal medicines, assist childbirth at home, and are often untrained and poorly qualified).<sup>26</sup> In line with previous reports,<sup>23</sup> this study showed that LHWs play a key role in altering women's health-seeking behaviour, which directly impacts paediatric health outcomes.

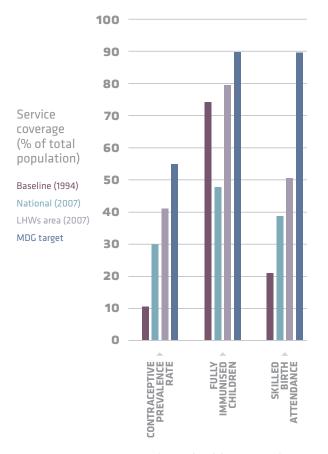
Female empowerment and improvement of the well-being of LHWs is a positive by-product of the programme. The monthly pay which LHWs receive is often an important source of income for the women's families.<sup>24</sup> As LHWs get training and gain access to healthcare resources, their skills and knowledge improve, along with their self-image.<sup>24</sup> They not only take pride in their life-saving services, but they are able to connect with other LHWs in surrounding communities and made demands for better job security. In 2002, LHWs made headlines by organizing demonstrations and sit-ins to protest delayed and insufficient stipends.<sup>24</sup> In early 2013, the government finally approved the regularisation of LHWs' service, such that LHWs began receiving guaranteed salaries in the place of stipends and enjoyed increased opportunities for career advancement as formal government employees. Amidst a conservative and patriarchal society, the LHWP has helped close the gender equity gap by providing women with an opportunity to earn money and improve their community status.

Identifying the programme's challenges is equally meaningful for informing future CHW models. Evidence from the literature suggests that the LHWP is facing a series of issues such as inadequate management, scarce resources and relatively low density of workers in remote areas. Though the LHWP has a welldefined management and supervisory structure, management

### Figure 3: Comparison of maternal and infant health indicators



### Figure 3: Comparison of maternal and infant health indicators – CONTINUED



Primary health care services

has faced several significant challenges. The rapid turnover of LHWP managerial positions has limited the number of seniorlevel experts in the field and hindered the programme's ability to provide effective leadership.23 A comprehensive review found that programme managers had failed to complete a number of activities, such as developing district-level procurement mechanisms, assessing district and provincial management capabilities, and further decentralising decision-making powers, as set out by the Strategic Plan (2003-2011) and the Planning Commission-1 (2003-2008), the core LHWP planning document.23 Integration at the health system's lower levels, particularly within the basic health units, has also been uneven and inadequate.<sup>31</sup> Additionally, there have been issues with noncompliance among LHWs. Twenty-five percent of LHWs are only delivering one third of the services provided by high-performing LHWs, some charge for their services, and many frequently work outside their catchment areas to assist with the EPI programme and other public health interventions.23 LHWs' involvement in other public health activities has prompted concerns that they are overworked. Additionally, the irregular disbursement of

salaries and inadequate job security has affected the motivation and credibility of LHWs. It was only in 2013 that this situation began to be addressed by the federal government, after years of protests and campaigning.<sup>24</sup> Irregular supplies of drugs and equipment, weak referral systems and inadequate integration of the MIS into the national health system have also been significant problems.<sup>31</sup>

#### **DHS Data Analysis**

Analysis of the Pakistan Demographic and Health Survey shows substantial improvements in maternal and child health indicators since 1994 (Figure 3). Using 1994 as a baseline and 2007 as the endpoint, trends in maternal and child health indicators over 14 years were used to assess the impact of the LHWP. Women and children in areas served by LHWs have seen more rapid improvements in health indicators than those in non-LHW areas. Though LHWs have successfully reduced maternal and infant mortality and accelerated progress towards other MDG targets, communities served by LHWs still lag behind international goals.

### SCALABILITY, SUSTAINABILITY, AND FUTURE DIRECTIONS

Reviews<sup>31,1</sup> of the LHWP have found it to be a cost-effective venture. The total cost per year to support one LHW is approximately US\$745.24 Since each LHW serves approximately 1,000 community members, this translates to about US\$0.75 per person per year.<sup>31</sup> Within the first eight years, the government spent approximately US\$115 million, of which 11% came from external funding.1 However, between 2003 and 2008 the budget increased to US\$356.6 million.<sup>23,1</sup> This budget increase allowed the programme to expand from 70,000 to 100,000 LHWs.23 The managing, monitoring, and training costs absorb only a small percentage of the overall programme budget.<sup>23</sup> Much of the remaining budget provides for the procurement of sufficient quantities of medicine, equipment, and contraceptives. Additionally, external reviews<sup>23</sup> of the LHWP have suggested that Lady Health Supervisors (LHS), who recruit and train LHWs, be mobile, requiring additional funding for operational vehicles. However, this suggestion has not yet been implemented.

Since its inception, the LHWP has grown from 40,000 HEWs in 2000 to 90,000 in 2008 to its current level of 110,000 workers.<sup>24</sup> Beyond financial resources, having an adequate workforce is the largest programme resource requirement. This has been a challenge in Pakistan as many women, particularly those from low-income communities, do not meet the minimum education requirements. Some areas also lack qualified instructors to deliver adequate training, and there is often inefficient coordination between health care facilities and union councils, which are the elected local government authority. These are particularly important concerns since they are more common in resourcelimited communities, threatening the programme's goal to reduce inequity. Unfortunately, much of the local recruitment has not followed programme protocol. Even though official policy called for a reduction in urban LHWs, both Punjab and Balochistan provinces saw the number of local urban LHWs increase. In addition, districts have had difficulty recruiting LHWs to work in health posts which are not already associated with the Programme, further isolating hard-to-reach areas.<sup>23</sup>

The WHO has expressed concerns that national CHW programmes may not be sustainable or able to properly scale up primary care services as was envisioned by the Alma Ata.<sup>32</sup> These concerns are primarily rooted in the vertical approach of many CHW programmes, the lack of career ladder for CHWs, and the decentralised structure of many programmes.<sup>32</sup> While the LHWP has addressed some of these issues, it has had variable levels of success. Over the past decade, LHWs have protested for better wages and greater job security.31 It is still of concern, however, that LHWs are overworked due to their participation in priority public health programmes in addition to their commitment to primary health care services.<sup>31</sup> The LHWP is decentralised in nature, but there have been efforts to integrate LHWs into the broader health system by ensuring they have proper access to basic health units and clinics to refer their clients to. However, some evidence suggests this integration is uneven and inadequate. Particularly in some remote areas, communities have poor access to health facilities, even if they are covered by the LHWP; this leaves LHWs with few options when referral is necessary.<sup>31</sup> Though the LHWP has proven to be scalable at a national level, these challenges may affect the programme's sustainability.

The process to scale up community-based health interventions involves increasing coverage by geographic expansion, adding technical interventions, changing policies, and strengthening capacity with resources. Several approaches have been used on a global scale to increase the sustainability and scalability of maternal, newborn and child health worker programmes, which include: increasing government involvement in directing and implementing programmes; partnerships between government and non-governmental organisations; dissemination of methods and results through manuals, training packages, and mass media; and organic spread from community to community through word-of-mouth or direct observation.<sup>33</sup>

### INSIGHTS FROM THE LADY HEALTH WORKER PROGRAMME

Pakistan's experience with the LHWP offers insight into successful implementation strategies, contextual enabling factors, and programme challenges to guide similar initiatives in other countries. Since its inception in 1994, strong, unwavering political support has enabled the programme's financial and administrative needs to continue to be met in the midst of government turnovers.<sup>32</sup> Additionally, Pakistan identified its most critical health problems to appropriately guide the programme's core objectives. Over two decades, a phased scale-up strategy has been used to gradually expand the LHWP to its current level, enabling the improvement strategies to be regularly developed and modified. Other strengths include strong recruitment policies, well-designed management and supervisory structures, and development of an information management system specific to the LHWP.<sup>31</sup> The key elements of each are briefly discussed below.

- Strict recruitment and training criteria develop a strong workforce. The Government of Pakistan implemented a well-defined strategy to rapidly recruit, train and deploy LHWs. Selection criteria include age, education, and residency limitations. This strategy fosters community ownership by allowing community members to identify the most suitable LHWs. The 15-month training programme combines classroom with on-the-job training and is complemented by continuing education sessions each month and 15 refresher courses on specific topics each year to maintain competencies.
- Health system integration builds partnerships. The LHW programme was implemented in close collaboration with all National Priority Programmes and within the existing public health infrastructure. Additionally, each LHW makes referrals to a local government health facility, where they also receive supplies, training, and funding. The programme has strong networks at the federal, provincial, and district levels, with each level having clear responsibilities.
- Adequate, supportive management builds trust. Each LHW is supervised directly by a LHS, who is responsible for approximately 20 to 25 LHWs. They are also supervised at higher levels by the district coordinator, assistant district coordinator, provincial field programme officer, and the executive district officer.
- **Electronic records improve quality assurance.** The LHWP utilises a comprehensive information system called the LHW management information system. It records LHW primary health care data and provides regular updates to the supervisory structures at the district, provincial and management levels. This system has not only helped LHWs manage their health records, but enables their supervisors to effectively evaluate LHWs' performance.

It is evident that the LHWP has significantly contributed to improving the health of Pakistan's population by addressing the health needs of its most impoverished communities. LHWs have become an integral and well-accepted component of Pakistan's health system and have accelerated the country towards development.

#### References

<sup>A</sup>http://education.randmcnally.com/images/edpub/Pakistan\_Political.png

<sup>1</sup> Global Health Workforce Alliance. (2008). *Country Case Study: Pakistan's Lady Health Worker Program.* Global Health Workforce Alliance and WHO. Retrieved March 1, 2014, from http://www.who.int/workforcealliance/knowledge/case\_studies/CS\_Pakistan\_web\_en.pdf.

<sup>2</sup>The World Bank. (2014). Pakistan. Retrieved March 1, 2014, from The World Bank: Data: http://data.worldbank.org/country/pakistan.

<sup>3</sup> UNDP. (2013). Human Development Report 2013: The Rise of the South: Human Progress in a Diverse World, Pakistan. UNDP. Retrieved March 1, 2014, from http:// hdr.undp.org/sites/default/files/Country-Profiles/PAK.pdf.

<sup>4</sup> National Institute of Population Studies and Measure DHS. (2013). *Pakistan* 2012– 13 *Demographic and Health Survey: Fact Sheet*. Retrieved July 22, 2014, from NIPS: http://www.nips.org.pk/abstract\_files/Pakistan%202012-13%20DHS%20Factsheet. pdf.

<sup>5</sup> WHO. (2013). WHO Eastern Mediterranean Region: Pakistan statistics summary (2002–present). Retrieved March 1, 2014, from http://apps.who.int/gho/data/node. country.country.PAK.

<sup>6</sup> Rizvi, N., Khan, K., and Shaikh, B. (2014). Gender: shaping personality, lives and health of women in Pakistan. Retrieved March 1, 2014, from BMC Women's Health: http://www.biomedcentral.com/1472-6874/14/53

<sup>7</sup> Government of Pakistan. (2013). Pakistan Millennium Development Goals Report: 2013. UNDP.

<sup>8</sup> National Institute of Population Studies and Measure DHS. (2013). *Pakistan Demographic and Health Survey* 2012–13. Islamabad: NIPS and Measure DHS.

<sup>9</sup> Government of Pakistan. (n.d.). 18th Constitutional Amendment, Constitution of the Islamic Republic of Pakistan. Retrieved March 17, 2014, from http://www.scribd.com/ doc/30269950/18th-Amendment-in-the-Constituion-of-Pakistan-Complete-Text.

<sup>10</sup> Nishtar, S. and Mehboob, AB. (2011). Pakistan prepares to abolish Ministry of Health. *Lancet*, 378 (9792):648–49.

<sup>11</sup> Nishtar, S., Boerma, T., Amjad, S., Alam, AY., Khalid, F., Haq, IU., and Mizra, Y.A. (2013). Health Transitions in Pakistan 1: Pakistan's health system: performance and prospects after the 18th Constitutional Amendment. *The Lancet*, 381 (9884): 2193–206.
 <sup>12</sup> WHO. (2010). *Health systems financing, the path to universal coverage*. Geneva: World Health Organization. Retrieved March 1, 2014, from http://www.who.int/whr/2010/en/

<sup>13</sup> Ministry of Social Welfare and Special Education. (2005). *Social protection strategy*, 2005. Islamabad: Government of Pakistan.

<sup>14</sup> Jowett K. (2011). *Pakistan – summary*. Background document for the 2011 State of the World's Midwifery Report. Retrieved from UNFPA: http://www.unfpa.org/ sowmy/resources/docs/country\_info/short\_summary/Pakistan\_SoWMyShort Summary.PDF.

<sup>15</sup> Shaikh, BT., Ejaz, I., Mazhar, A., and Hafeez, A. (2013). Resource allocation in Pakistan's health sector: a critical appraisal and a path toward the Millennium Development Goals. *World Health and Population*, 14 (3): 22–31.

<sup>16</sup> Douthwaite, M. and Ward, P. (2005). Increasing contraceptive use in rural Pakistan: an evaluation of the Lady Health Worker Programme. *Health Policy Plan*, 2: 117–23.

<sup>17</sup> Sabih, F., Bile, K.M., Buehler, W., Hafeez, A., Nishtar, S., and Siddiqi, S. (2010). Implementing the district health system in the framework of the primary health care in Pakistan: can the evolving reforms enhance the pace towards Millennium Development Goals? *Eastern Mediterranean Health Journal*, 16 (suppl): S132–44.

<sup>18</sup> WHO. (2006). The world health report 2006: Working together for health. Geneva: World Health Organization.

 <sup>19</sup> WHO. (n.d.). Pakistan, Health Systems Strengthening. Retrieved March 17, 2014, from http://www.emro.who.int/pak/programmes/health-system-strengthening-hss.html
 <sup>20</sup> WHO. (2012). WHO South-East Asia Region: Nepal statistics summary (2002–

present). Retrieved April 1, 2014 from WHO: http://apps.who.int/gho/data/?theme=country&vid=14500.

<sup>21</sup> Khan, AK. (2012). Newborn survival in Pakistan: a decade of change and future implications. *Health Policy and Planning*, 27 (3): iii72–iii87.

<sup>22</sup> Horton, R. (2013). Pakistan: health is an opportunity to be seized. The Lancet, 381: 2137.
<sup>23</sup> Oxford Policy Management. (2009). External Evaluation of the National Programme for Family Planning and Primary Health Care: Lady Health Worker Programme, Management Review. Retrieved March 1, 2014, from http://www.opml.co.uk/sites/opml/files/ LHW\_%20Management%20Review\_1.pdf

<sup>24</sup> Peers for Progress. (n.d.). Program Spotlight: Pakistan's Lady Health Workers: A National Model for Delivering Primary Healthcare and Peer Support. Retrieved March 17, 2014, from http://peersforprogress.org/wp-content/uploads/2013/09/20130923\_ pakistans\_lady\_health\_workers.pdf.

<sup>25</sup> Ahmad, R. (2009, March). Explaining antenatal health seeking behaviour: a sensemaking perspective. *Thesis*. Imperial College London.

<sup>26</sup> Zhu, NJ. (2013). Structural and cultural influences of antenatal health seeking behaviour: System dynamics modelling. *Thesis*. Imperial College London.

<sup>27</sup> Pakistan Ministry of Health, PHC Wing. (2008). National Program for Family Planning and Primary Health Care: The Lady Health Workers' Programme. Retrieved March 1, 2014, from http://www.who.int/pmnch/countries/ali\_akhtar\_ hakro\_Pakistan.pdf.

<sup>28</sup>Omer, K., Mhatre, S., Ansari, N., Laucirica, J., and Andersson, N. (2008). Evidencebased training of frontline health workers for door-to-door health promotion: a pilot randomized controlled cluster trial with Lady Health Workers in Sindh Province, Pakistan. *Patient Education Counsel*, 72(2): 178-85.

<sup>29</sup> Khan A. (2012). The contribution of Lady Health Workers towards immunization in Pakistan. USAID. Retrieved March 17, 2014, from http://www.resdev.org/files/ policy\_brief/21/21.pdf

<sup>30</sup> Hafeez A., Khan Z., Jooma R., and Sheikh M. (2010). Pakistan human resources for health assessment, 2009. *Eastern Mediterranean Health Journal*, 16: S145–151.

<sup>31</sup> Wazir, M., Shaikh, BT., and Ahmed, A. (2013). National program for family planning and primary health care Pakistan: a SWOT analysis. *Reproductive Health*, 10 (60).

<sup>32</sup> Tulenko, K. M. (2013, March). Community health workers for universal healthcare coverage: from fragmentation to synergy. Retrieved March 1, 2014, from Bulletin of the World Health Organization: http://www.who.int/bulletin/ volumes/91/11/13-118745/en/.

<sup>33</sup> Rosato, M., Laverack, G., Grabman, L., Tripathy, P., Nair, N., et al. (2008). Community participation: lessons for maternal, newborn, and child health. *Lancet*, 372(9642): 962–971.

#### ACKNOWLEDGEMENTS

This working paper was written as part of the Adding Content to Contact project, which aims to systematically assess the obstacles that prevent and the factors that enable the adoption and implementation of cost-effective interventions for antenatal and post-natal care along the care continuum. As part of this process, the project is working to identify existing and potentially innovative approaches to improve delivery of antenatal and postnatal health services through interviews with key informants.

ACC was made possible by Grant Number OPP1084319 from the Bill & Melinda Gates Foundation, and is a collaboration between the Maternal Health Task Force and Department of Global Health and Population at the Harvard School of Public Health, HRP/WHO, and ICS Integrare.

Women and Health Initiative | Maternal Health Task Force Harvard School of Public Health www.womenandhealthinitiative.org www.maternalhealthtaskforce.org

May 2014 (Revised August 2014)