Engagement of Lady Health Workers for COVID-19 Home-based Care in Pakistan: An Example of Task Shifting

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ABSTRACT

In April 2021, following the Federal government's decision, an intervention was designed to execute COVID-19 home-based care training program for the LHWs in all provinces to avoid overcrowding in large hospitals so that critically ill patients can get due attention and treatment. The training curriculum was developed in local languages following guidance from NIH and WHO. Basic health units were used as the venue for training and the doctors delivered the sessions as master trainers. Around 46,000 LHWs completed the training all over Pakistan and started visiting their catchment households to identify and counsel any COVID-19 patients and families on home--based care. Their post-training impressions showed that 97% were satisfied with the content, rigour, quality of training, and that they received the most updated information on COVID-19 from reliable sources. Training of these LHWs enhanced their skills for dealing with COVID-19 patients and helped ease the pressure on a stressed and over-burdened hospitals. This intervention exemplifies task shifting to LHWs, hence addressing the issue of insufficient health workforce in the hospitals and extending public healthcare to rural communities.

Key Words: *COVID-19, Home-based care, Health system, Lady health workers, Pakistan.*

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Living through the fifth wave of COVID-19 with the Omicron variant which has caused only mild symptoms among those who were vaccinated and hitting hard those who were not vaccinated. Pakistan needed to take steps to at least ease the blow and delay the seemingly inevitable. Even in the early phases of the pandemic, there were number of cases who were diagnosed positive but were only confined to homes as advised by the physicians. Those patients and their families needed continuous counselling for addressing the fear and guidance on monitoring the symptoms and protecting other family members from contracting the infection.[1] Home-based care (HBC) guidelines were developed and made public by the international agencies as well as the Government of Pakistan.[2,3] Later, World Health Organisation (WHO) and the National government released the home isolation guidelines.[4,5]

The question that who could reach the home confined COVID-19 patients was not easy to answer in the context of Pakistan.

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Lady health workers (LHWs) are an integral part of healthcare system and have served as bridge between communities and hospitals. In Pakistan and other developing countries, due to non-availability of doctors and paramedics in the primary healthcare facilities, the community based health workers have played an exceptional role in providing primary healthcare.[6,7] Started in 1993, the LHW Program in Pakistan comprises district-based cadres of LHWs who are trained to provide specific, basic primary healthcare treatment, and preventive services. In remote rural settings where they work with little support and in urban areas, their work helps establish a milieu of wellbeing, enhances interaction of patients with healthcare providers and enables timely treatment, prevention, and even screening for diseases. The LHWs are linked to primary health centres that provide extensive medical services for populations of their catchment areas and they serve as the first points of referral and as administrative hubs. The LHW has become the lynch pin for all health promotion services to be provided at the community's doorstep.[8] Credible evaluations of the LHW program in Pakistan have declared this initiative as effective, efficient, impactful, and sustainable.[9,10] Moreover, local communities with whom LHWs have built a relationship of trust, regard them just like medics and approach them as the first points of contact for primary healthcare. Although unaccredited, yet these LHWs played a critical role in responding to the COVID-19 pandemic as it swept through the country, especially in predominantly rural areas of the country. Since LHWs have access to large number of people, it would have been a

missed opportunity if they had not been trained on giving guidance to families on home-based care for mild cases of COVID-19. Amidst the myths, misconceptions, and all rumours, it was also important to avoid panic in the communities about the disease.[11]

The aim of this paper was to share the results of an intervention under the auspices of a USAID's project Integrated Health Systems Strengthening and Service Delivery (IHSS-SD) Activity in Pakistan to train the LHWs, particularly in response to the COVID-19 pandemic. Following the principles of task shifting, LHWs were engaged for counselling of the home confined COVID-19 patients and their families.

WHO recommends that all laboratory confirmed cases must be isolated and cared for in a healthcare facility. However, in situations where isolation in a healthcare facility of all cases is not possible, priority will be given to those with severe and critical illness and those with mild disease and risk for poor outcome (age >60 years, cases with underlying comorbidities *e.g.*, chronic cardiovascular disease, chronic respiratory disease, diabetes, and cancer). Since all mild cases cannot be isolated in health facilities, patients with mild disease and no risk factors must be managed at home. Knowing the weaknesses in the health system of the country and keeping in view the burden of mild cases which is more than 80%, Government of Pakistan approved the guidelines for home isolation / quarantine.[2,4]

Keeping in view the dearth of healthcare providers in hospitals and overwhelming disease burden, it was crucial to provide support to all provinces and regions to develop and implement a strategy for the execution of home isolation / quarantine guidelines through the large network of LHWs. This necessitated the development of a training curriculum for LHWs, in line with the guidance of CDC, WHO and the National Institute of Health, Pakistan. Suggestions from the provincial health departments were also incorporated. IHSS-SD Activity technical team obtained the necessary buy-in from the provincial secretariats and directorates of health. Master trainers comprising of lady health supervisors and medical officers from the concerned health facility were identified at the provincial and district level. They were trained for subsequently rolling out the cascade of trainings at the health facility level, with which LHWs are attached for reporting. In Punjab province, outreach staff of health department comprising food and sanitary inspectors, nutrition officers, vaccinators, and dengue patrols were also being trained. Cost of this activity includes the logistics for the training sessions to be conducted, travelling fare, daily allowance to be given to LHWs, and training monitors. Venue and other logistics were provided by the respective health departments because LHWs are government employees.

As for ethical considerations, formal approval of the respective departments of health and the LHW program coordinators were sought, who also endorsed the training curriculum. All participants gave their consent to join the training after their nominations by their respective department. This capacity building intervention was executed from April 2021 to May 2022. Nominations were obtained from each district and training calendar was developed in batches of 10-15 trainees. Monitoring and supervision of each training session was done for quality assurance and compliance of COVID-19 SOPs. Pre- and post-test were conducted to see the knowledge gain from the training.

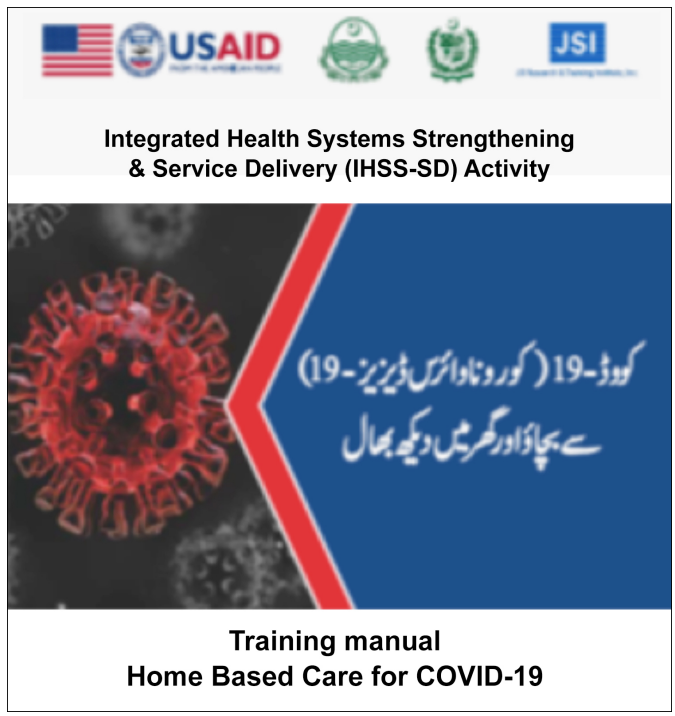

Figure 1: Training manual for lady health workers, based on the guidelines of WHO and NIH, Government of Pakistan.

The prime objective of the home-based care (HBC) training curriculum (Figure 1) was to build capacity of community based workers and to support families of diagnosed and suspected COVID-19 individuals regarding home isolation and quarantine in all districts of Pakistan. Hence, it helped in avoiding overcrowding in the large hospitals where critically ill patients needed more attention and necessary treatment. This training enabled them to provide support to all mild confirmed and suspected cases during home isolation/ quarantine and guide their families, and conduct regular follow-up. LHWs were trained in the interpersonal communication and counselling skills to ensure effective risk communication and counselling to the families of COVID-19 suspected & positive during the household visit. The LHWs also provided support in identification and registration of suspected cases and contacts of confirmed and suspected cases. They conduct focused counseling sessions with families and provide printed IEC material, developed by the government of Pakistan in Urdu language. For Sindh province, it was translated in Sindhi language too.

Having started in April 2021, the project has trained around 45,700 LHWs throughout Pakistan, which is almost 50% of the total LHWs employed for community based primary healthcare. The number trained represents the LHWs mostly serving the rural inhabitants and in the districts where COVID-19 disease burden was relatively higher. Table I shows the number of LHWs

trained against the numbers nominated by their respective health departments. Around 89% of the nominated LHWs received the home-based care training under the USAID support.

Table I: Number of LHWs trained in HBC training out of those nominated by the respective provincial health authorities.

Province / Area	Numbers trained / Numbers nominated	Percentage trained
Punjab	3725/4046	92%
Muzaffarabad	3226/3351	96%
Gilgit	966/1131	85%
Khyber Pakhtunkhwa	15204/16000	95%
Sindh	18401/20793	88%
Baluchistan	4750/6222	76%
Grand Total	45717/51543	89%

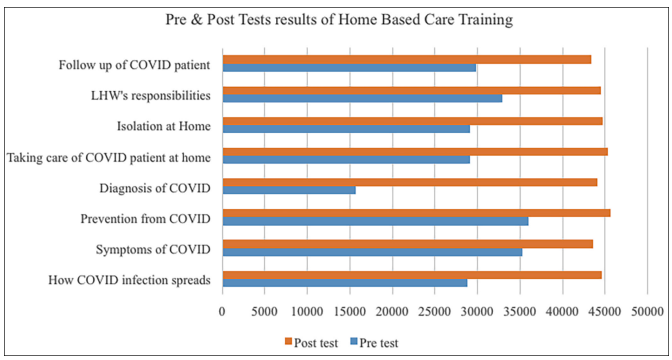

Figure 2: Results of pre- and post-tests during the training on Home based Care for COVID-19 patients.

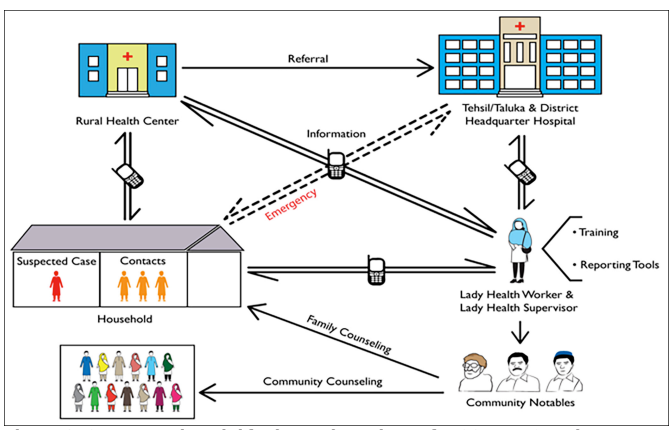

Figure 3: Conceptual model for home-based care for COVID-19 patients.

The curriculum contents for the HBC training included the basic definition and mode of spread of disease, its signs and symptoms, preventive measures such as social distancing, use of face mask and sanitizer, isolation and quarantine, diagnostic tests for confirming COVID-19, home-based care of COVID-19 patient, and steps to be taken to prevent its spread at home, disinfection of household items with bleach solution, referral of a patient with progressing symptoms, and follow-up.

Each training session included the didactic sessions, discussions, Q&A, group work, and presentation by the training participants. Pre- and post-tests were conducted and all participants were given the certificates of attendance in the end. The post-tests showed significant increase in the knowledge of LHWs on COVID-19 home-based care as shown in Figure 2. No monetary incentive was offered to the trainees for performing additional tasks post HBC training.

Once trained and deployed back in the field, all LHWs were provided with the face masks and sanitizers. All LHWs were linked with their nearest health facility in case need to refer a deteriorating case isolated at home.

Conceptual model of this intervention shown in Figure 3 above depicts that LHW is the cornerstone of this whole initiative, who has received the training as well as the reporting tools. She interacts with the community notables as well as visits her designated households, and she stays in touch with those families where suspected/confirmed COVID cases are found. Community notables after having received the key messages from the LHW also play a pivotal role in community counselling as well as family counselling where COVID cases with mild symptoms are confined within the household premises. On the other hand, LHW is connected with the primary and secondary health centres, in case a home confined COVID patient needs to be transferred to a healthcare facility, depending on his/her condition. She also leaves a cell phone number of the health facility with the family so that they can contact the hospital by themselves in case of an odd hour or an acute emergency.

As a result of this training, LHWs are helping their local communities by encouraging the behavioural changes needed to prevent infection, such as social distancing, wearing face masks, and taking all the necessary hygiene measures. An independent M&E unit monitored each training session for assessing the rigor and quality of the training. Post training, the respective communities considers LHWs as the first point of contact for COVID-19 related information. Lady health supervisors who are otherwise looking after the performance of LHWs in their routine tasks, also monitor the LHWs COVID-19 home-based care activities in the post-training phase now, and address any issues and ambiguities arising during the counselling to families.

The introduction of COVID-19 HBC training not enhanced their COVID-19 knowledge, but also better equipped them to handle any other infectious disease outbreaks in the community. In addition, the participation of CHWs may help ease the pressure on healthcare facility based on frontline medical workers who were struggling to cope with COVID-19 case load and those who needed hospitalisation. More broadly, the availability of trained health personnel ready to take part in different projects augmented the capacity of the public healthcare human resource and brought services closer to the community. It is important to note that LHWs carried out their regular duties (exposing themselves and their families to the risk of infection) and their work hours increased substantially.

Over the past half-century, CHWs have been a growing force for extending healthcare and improving the health of populations across the globe.[12,13] There is now a compelling amount of evidence that CHWS are critical for helping healthcare systems

to achieve their potential, regardless of a country's level of development.[14] Likewise, the LHWs in Pakistan have always played a critical role in health emergencies. Nevertheless, there is need to have a continuous capacity building to serve in the ever-evolving healthcare system.[15,16] This bare minimum support through refresher training, logistics, and commodities can actually boost the performance of LHWs.[17] Hence the mobilisation and training of LHWs during peak waves of any infectious disease outbreak will help ease the pressure on a stressed health-care system and improved its preparedness for future outbreaks. The process of inducting and training LHWs on home--based care for COVID-19 mild cases and implementing safety measures for them was highly acknowledged and appreciated by the government stakeholder and other development partners. By the time infections spiked in many areas during the second, third, and fourth waves, many LHWs had already started health education during their door-to-door visits with up to date information, training and protective equipment. The training and mobilisation of the LHWs and other community based health workers actually helped ease pressure on an already stressed and over-burdened healthcare system. Simultaneously, this initiative also improved the overall preparedness of the LHWs for any future disease outbreaks. The success of the training program exemplifies how such capacity building initiatives can help address the gaps in the health workforce and the outspread reach of primary healthcare at the doorsteps of the communities.[18]

Creating a training structure for LHWs across the whole country faced several challenges: including the geographical spread of LHWs; the need to bring in large number of health workers on the training sites; different local languages, and the limited availability of trainers and training venues. The IHSS-SD Activity tackled these logistical issues and delivered the COVID-19 training programme by taking on board the local master trainers which helped in cost saving and conducting the training in local languages; providing transport fare and per diem to the participants so that they have no excuse of not attending the training; and using government health facilities as training sites, an environment and ambiance which is known to them and saved rental costs of hotels.

In Pakistan, there is a large rural population (>60%) with limited availability of doctors and paramedics, it is essential that LHWs receive periodic refresher trainings to stay abreast with the latest knowledge in public health and to function in the mainstream of healthcare system, where they can help increase the reach of public healthcare and contribute to the fight against future public health emergencies.

COMPETING INTEREST:

The authors declared no competing interest.

AUTHORS' CONTRIBUTION:

BTS: Conceptualised, drafted this paper, and added bibliography.
AC: Helped in gathering the exact data on LHWs trained all over Pakistan, added graphics, and assisted in write up.
IY: Helped with the write-up on contents of training.
NA: Provided critical inputs on successive drafts of the paper.
All the authors have approved the final version of the manuscript to be published.

REFERENCES

1. Qureshi A, Syed Sulaiman SA, Kumar N, Qureshi PAAA. Knowledge, perception, and fear among the global population towards newly evoked variant Omicron (B.1.1.529). *PLoS One* 2022; **17(7)**:e0270761. doi: 10.1371/journal.pone.0270761.
2. Centre for disease control and prevention. Interim guidance for implementing home care of people not requiring hospitalisation for coronavirus disease 2019 (COVID-19). Atlanta, February 12, 2020.
3. Ministry of national health services, regulations & coordination. Guidelines: Home quarantine during COVID 19 outbreak. Islamabad, March 20, 2020.
4. World health organisation. Home care for patients with suspected or confirmed COVID-19 and management of their contacts. Interim guidance. Geneva, August 12, 2020.
5. Ministry of national health services, regulations, and coordination. Guidelines: Home isolation during COVID 19 outbreak. Islamabad, May 7, 2020.
6. Hafeez A, Mohamud BK, Shiekh MR, Shah SA, Jooma R. Lady health workers programme in Pakistan: Challenges, achievements and the way forward. *J Pak Med Assoc* 2011; **61(3)**:210-5.
7. LeBan K, Kok M, Perry HB. Community health workers at the dawn of a new era: CHWs' relationships with the health system and communities. *Health Res Policy Syst.* 2021; **19(Suppl 3)**:116. doi: 10.1186/s12961-021-00756-4.
8. World health organisation. Pakistan's experience in lady health workers (LHWs) program. Regional committee for the eastern Mediterranean-fifty-first session. Cairo; September 2004.
9. Oxford policy management. Lady health workers program in Pakistan: Performance evaluation. Islamabad: 2009.
10. Oxford Policy Management. Lady health workers program: External evaluation of the national program for family planning and primary healthcare. Islamabad: 2019.
11. Basharat S, Shaikh BT, Abdullah MA. COVID-19 In Pakistan: Where do we stand and what is the way forward? *J Ayub Med Coll Abbottabad* 2021; **33(3)**:541-4.
12. Willcox ML, Peersman W, Daou P, Diakité C, Bajunirwe F, Mubangizi V, *et al*. Human resources for primary health care in sub-Saharan Africa: Progress or stagnation? *Hum Resour Health* 2015; **13**:76. doi: 10.1186/s12960-015-0073-8.
13. Hartzler AL, Tuzzio L, Hsu C, Wagner EH. Roles and functions of community health workers in primary care. *Ann Fam Med* 2018; **16(3)**:240-5. doi: 10.1370/afm.2208.
14. Perry HB, Zulliger R, Rogers MM. Community health workers in low, middle and high-income countries: An overview of their history, recent evolution and current effectiveness. *Annu Rev Public Health* 2014; **35**:399-421. doi: 10.1146/annurev-publhealth-032013-182354.

15. Closser S, Jooma R. Why we must provide better support for Pakistan's female frontline health workers. *PLoS Med* 2013; **10(10)**: e1001528. doi: 10.1371/journal.pmed.1001528.

16. Byrd-Williams C, Ewing M, Rosenthal EL, St John JA, Menking P, Redondo F, *et al*. Training needs of community health workers facing the COVID-19 pandemic in Texas: A cross-sectional study. *Front Public Health* 2021; **9**: 689946. doi: 10.3389/fpubh.2021.689946.

17. Aftab W, Rabbani F, Sangrasi K, Perveen S, Zahidie A, Qazi SA. Improving community health worker performance through supportive supervision: A randomised controlled implementation trial in Pakistan. *Acta Paediatr* 2018; **107 Suppl 471**:63-71. doi: 10.1111/apa.14282.

18. Singh SS, Singh LB. Training community health workers for the COVID-19 response, India. *Bull World Health Organ* 2022; **100(2)**:108-14. doi: 10.2471/BLT.21.286902.