

## ORIGINAL ARTICLE

PANORAMIC VIEW OF CHALLENGES AND OPPORTUNITIES FOR  
PRIMARY HEALTHCARE SYSTEMS IN PAKISTAN

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**Background:** Pakistan has a broad system of primary health care facilities to achieve mission of “Health for all”. Over the last seven years health expenditure by government of Pakistan has been increased to attain this goal. This study was conducted with the aim to assess all blocks of service readiness (basic equipment, basic amenities, laboratory capacity, standard precautions and essential medicines) in public-primary health care facilities of tehsil Rawalpindi, Pakistan. **Methods:** A cross-sectional survey was carried out utilizing two separate structured questionnaires for basic health units and rural health centres. Information was collected from administrative heads along with other staff where required, of all public-primary health care facilities of Tehsil Rawalpindi. Data were analysed by using SPSS version.17. **Results:** A total of 26 health facilities were assessed; only 56% BHUs had a sign board that was available in readable form. BHUs with women medical officer as administrative head constituted 52%. Backup for electricity and toilet were the most neglected areas. Basic amenities, standard precautions and laboratory capacity of Basic Health Units (BHUs) showed a clear deviation from standards and is thus a challenge for Pakistan’s Primary Health care (PHC). On the other hand for Rural Health Centres (RHCs), most were on the way to meet expectations. **Conclusion:** Pakistan’s government is undoubtedly putting efforts in order to achieve targets of primary healthcare but it needs better mainstreaming of political, institutional and social commitments with modified standards for PHC.

**Keywords:** Health systems; Primary healthcare; Service readiness; Healthcare facilities

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## INTRODUCTION

Health systems are defined as comprising of all organizations, institutions and resources that are devoted to produce health action. Health action is defined as: “Any effort whether in personal health care, public health service or through inter-sectoral initiatives whose primary action is to make health better”.<sup>1</sup> From 2001 to 2011 there is marked increase in health care spending all over the world. “The health budget expenditure of Pakistan over the last 7 years, since 2007–08 (Rs.60 Billion) to 2014–15 (Rs.114.2 Billion) witnessed a growth of 10% per annum”.<sup>2</sup>

World Health Organization (WHO) defined Primary Health Care (PHC) as: “socially and universally acceptable health care that should also be affordable and requires the clients to be more self-reliant to understand needs of their health”. WHO gave the concept of primary health care (1978) as a strategy to meet “Health for all by 2000” which was launched by world health assembly resolution and the logical result of primary health care is better health for all. It should be acceptable and accessible to every individual and family, with their full participation at a cost that the community and country can afford.<sup>3</sup>

In Pakistan, PHC covers primary care, prevention of diseases, health promotion, population’s health and development of community within a holistic framework, with the core purpose of providing essential community focused health care.

Pakistan is also part of “Health for all by 2000”. It has strong commitment to achieve the target by formulating national health policies and inception of different programs for universal coverage of health.<sup>4</sup> However, in spite of these commitments the health indicators of Punjab depict inequities between rural and urban population (Table-1).

Table-1: Health Indicators, Punjab

Indicator	Urban	Rural
Infant Mortality Rate (IMR)	67	96
Under-5 mortality rate	78	115
Percentage of women getting antenatal care from skilled provider	88	66.7
Percentage of live births in Public health facility	24.4	10.5
Percentage of live births at home	34.3	58.3
Percentage of children with all basic vaccination	74.4	61.5

Source: PDHS (2013–14)

After 18<sup>th</sup> amendment the subject of health has become devolved; this devolved structure gave a new opportunity to provinces to improve health care system at grass-root level, i.e., from province to district and eventually up to village level or union council (UC).<sup>4</sup>

In Pakistan the health care delivery is comprised of three tiers, i.e., primary, secondary and tertiary. Presently, Pakistan is operating with more than 5,527 basic health units (BHU), 650 rural health centres (RHC) -out of which 2,474 BHU and 306 RHC are in Punjab. There are more than 5000 dispensaries and more than 1096 public hospitals too. It is also evident that majority of respondents reported poor

responsiveness of service in public health facilities; 58% stated bad or poor services while 60% were not satisfied from inpatient care.<sup>4</sup>

A BHU provides preventive services in the form of EPI immunization, antenatal care, and post-natal care, skilled birth attendants during delivery, management of sexually transmitted infection & reproductive tract infection (STI & RTI), family planning (FP) and nutrition counselling. BHU is comprised of extensive outreach system with lady health visitor (LHV), communicable disease control (CDC) supervisor and mid-wives.<sup>5</sup> BHU constitutes 2<sup>nd</sup> level of referral after LHW in field. Lady Health Worker (LHW) refers patients from field to the BHU while BHU refers patients to next higher level (RHC) if needed.

Rural health centres is the second integral component of PHC level of Pakistan and is more specialized as compared to BHU in every aspect. These are well equipped with 20 in-patient, laboratory and ambulatory services that are absent from a BHU. Rural health centres is standing at 24/7 third referral level and gets patients from field and BHU along with medico-legal, basic surgical and dental services. It has capacity to refer patients to next higher level, i.e., tehsil headquarters (THQ) hospital. RHC is developed to cater to a catchment population of about 50,000 to 100,000 and is established at *thana* (Police station) level with catchment area of around 4 or 5 UCs

A new tool has been introduced by WHO in 2013 to assess quality of service delivery which is SARA (Service Availability and Readiness Assessment). The instrument is quite flexible and can be modified according to country requirements. It comprises of three sections, i.e., service availability, service readiness and specific service readiness. The component that this study used was service readiness that was further distributed into five blocks (basic equipment, basic amenities, standard precautions, laboratory capacity and essential medicines).

Service readiness is defined as the collective capability of facilities and their available components to deliver health services in best form. The service readiness is evaluated by the capacity of health facilities sufficient to give health services which can be measured by availability of basic components of equipment and amenities along with laboratory and medicines in functional form.<sup>6</sup>

The purpose of this study was to assess service readiness of PHC facilities because in Pakistan the issue is not only the physical presence of services but their presence in functional form.

## MATERIAL AND METHODS

The study design was cross sectional survey. Data were collected by using two different structured questionnaires for BHU and RHC and filled by administrative heads. The research included visits to BHUs and RHCs of Tehsil Rawalpindi. Owing to the limited number of public-primary health care facilities (23BHU and 3RHC) in tehsil, all were included in the study while MCH centres, dispensaries were excluded because of the non-availability of specific services.

WHO tool for Service Availability and Readiness Assessment (SARA) was used with some contextual adaptation to Pakistan's public-primary health care according to Minimum Service Delivery Standards (MSDS). It was also pretested on one BHU and one RHC; during pre-testing any query or uncertainty was noted and removed. The Cronbach's alpha co-efficient for the scale of service readiness in this study was 0.655. Overall percentage was generated for individually five components of service readiness.

Permission to conduct the study was obtained from the ethical review board of Al-Shifa Trust Eye Hospital and before data collection the permission was sought from EDO-H in District health office, Khayaban-e-Sir Syed, Rawalpindi, Pakistan.

## RESULTS

A total of 26 health facilities were assessed, out of which 23 were BHUs and 3 were RHCs. Two BHUs were found in urban area that made 8.7% of total BHUs for tehsil Rawalpindi. BHUs normally operate from 8 am in the morning to 2 pm in the afternoon but 17.4% (4 BHUs) initiated 24/7 service and all of these were located in rural areas. BHUs serve a catchment population of up to 25,000 individuals; however, 4.3% of health facilities were covering more than this.

Only 56% BHUs had a sign board that was available in readable form. BHUs with Women Medical officer (WMO) as administrative head constituted 52% and rest of them had only male medical officers (MO).

**Table-2: Basic amenities-Rawalpindi, Pakistan**

Basic Amenities	Available and Functional		Available but not functional		Not available	
	BHU%	RHC%	BHU%	RHC%	BHU%	RHC%
Backup for Electricity	19% (2)	100% (3)	----	----	----	----
Water (at facility)	56% (8)	100% (3)	9% (2)	----	35% (13)	----
Toilet	52% (12)	100% (3)	48% (11)	----	----	----
Landline Telephone	13% (3)	100% (3)	---	----	87% (20)	----
Separate consultation room	91% (21)	100% (3)	4% (1)	----	4% (1)	----
Separate examination room	35% (8)	100% (3)	26% (6)	----	39% (9)	----
Ambulance (Not applicable for BHU)		66% (2)		35% (1)		----

Basic amenities (Table 2) were not satisfactory for BHUs. Backup for electricity and toilet were the most neglected areas. Boring/hand pump was the most frequent source of water for BHUs (48%) followed by tanker system (39%) and piped source (13%). The BHU that relies on tanker system mostly remains out of water because the payment had to be made by MO/WMO that is reimbursed very slowly by government. All RHCs had piped source of water.

Questions were asked about seven basic equipment. Blood Pressure (B.P) machine was present in 20% of BHUs, stethoscope in 87%, adult weighing scale in 61%, infant weighing scale in 69%, thermometer in 69%, EPI cold box in 96% and refrigerator in 87%. None of the BHUs had all basic equipment present in functional form.

Two BHUs had computers. Two other BHUs had ultrasound machines as well. The RHCs were asked about other equipment not available at BHUs like ECG, ultrasound, dental unit and x-ray machine and the results were quite satisfactory. RHCs had all equipment available on the day of visit.

The availability of sterilization apparatus was not satisfactory for BHUs; sterilizer was present in fourteen BHUs. None of the BHU's had all components of sterilization i.e. autoclave, sterilizer, needle cutter, chlorine and sharps container.

Technically there was no facility for laboratory tests service from government for BHUs; however, three tests are recommended i.e. blood glucose, haemoglobin and pregnancy test. Blood glucose test was functional in 39% of BHUs, pregnancy test in 26% and haemoglobin test was functional in 13% of BHUs. Besides these recommended tests, few BHUs also had facility of Tuberculosis Directly Observed Treatment Short Course (DOTS) and Random Blood Sugar (RBS). In RHCs, 10 tests were mandatory for their laboratory and they were found to be functional in every RHC.

The defined list of medicines was present in 100% of BHUs but 69% of respondents (MOs/WMOs) were not satisfied about that list. Tablet Diclofenac was out of stock in 22% BHUs and MO/WMO complained for its limited supply. Medicine stock register was available in all BHUs in updated form. Same list of essential medicines was found functional for RHCs and the medicines were available in stock in all RHCs.

When administrative staff was asked about problems related to staff at BHUs, most of them highlighted low salary package (39%) and vacant positions (20%) as an issue for them. When the respondents from BHUs were asked about the reason for poor service readiness of their health facility they claimed lack of ambulatory service

(95%), lack of laboratory (94.8%) and poor bill reimbursement from EDO-H office (86%) as a hindrance.

When all blocks of service readiness were compared between BHUs and RHCs, a sharp deviation was observed in basic amenities, standard precautions and laboratory capacity for BHUs (Figure-1).

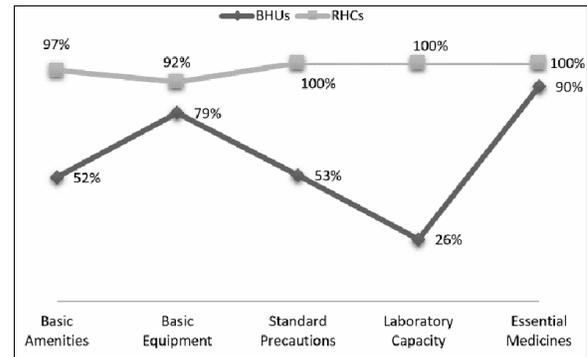


Figure-1: Comparison of service readiness blocks between RHCs & BHUs

## DISCUSSION

Health systems do not have a defined boundary but for low and middle income countries there should be a long developmental process for the strengthening of health systems from primary to tertiary level<sup>7</sup>, the matter is not what financial expenditure has been made by government for health systems but what strategies and procedures were made in order to make the health systems effective and efficient<sup>8</sup>.

In Pakistan, despite all efforts for health sector, IMR is still at 65 per 1000 live births, Total Fertility Rate is almost stagnant at 3.9.<sup>9,10</sup> For Punjab, the percentage of deliveries at public health care facilities is just 14.6% and only 2.2% people accessed primary health care facilities rest of people either bypass this tier or preferred private healthcare facilities.<sup>11</sup> This study highlighted the gaps of service readiness for PHC facilities. Therefore regular assessment of public health facilities is needed to evaluate the strengths and weaknesses of health systems of a country and assists health officials in decision making processes.<sup>12</sup>

The empirical findings of this study suggested that both levels of PHC facilities, i.e., RHCs and BHUs had quite different situation for service readiness and it was in contrast to PHC facilities of Sierra Leone where both tiers of PHC had almost same level for service readiness.<sup>11</sup> This results in lack of trust among community for public healthcare facilities because from the experience of BHUs, people get the image of missing facilities.

Basic amenities and equipment is necessary for running of preventive, promotive and curative activities in PHC facilities.<sup>13</sup> The findings of this study

revealed the inadequate condition of BHUs for availability in functional form of basic amenities and basic equipment but RHCs maintained their standard in this respect. It is in contrast to Kenya where all tiers of PHC facilities had same situation for amenities and equipment<sup>14</sup> and all of those were better than BHUs of tehsil Rawalpindi.

The provision of essential medicines is one of the eight components of Alma-Ata Declaration.<sup>15</sup> The results of our study showed presence of essential drug list in all sampled PHC facilities, although MOs of BHUs were not satisfied from the list. The difference in service readiness between PHC facilities can be justified on the basis of greater financial and purchasing powers of Senior Medical Officer (SMO) as compared to MO which is also suggested for better PHC.<sup>13</sup>

Basic amenities, standard precautions and laboratory capacity of BHUs showed a clear deviation from standard and are thus a challenge for Pakistan's PHC. On the other hand for RHCs, they are on their way to meet expectations. PHC should be acceptable and accessible to every individual and family, with their full participation at a cost that the community and country can afford<sup>16,17</sup> but this study showed that in spite of its affordability in Pakistan, people don't prefer it at any level because of poor service readiness.

The fundamental purpose of Alma-Ata declaration was mainly to bridge these health gaps. Therefore, PHC facilities are supposed to provide preventive, curative, promotive and referral services to ensure equitable health for the population<sup>18,19</sup>, not only this but it also prevents rest of the two tiers of health care systems from over burdening with patients<sup>20</sup>.

Pakistan's government is undoubtedly putting effort to keep the pace in order to achieve targets of primary healthcare but it needs better mainstreaming of political, institutional and social inputs with modified standards for PHC.

The limitation of the study was logistics and social barriers to reach far flung rural areas and a small sample size that may hinder generalizability of findings.

District health government should conduct such assessments on regular basis to evaluate services especially before expansion of services. This study explored the fragile components of service readiness for PHC facilities in Rawalpindi tehsil and may serve as a strong evidence for policy makers for prompt implementation of policy for primary healthcare level in Pakistan that can focus on service readiness.

## CONCLUSION

The results revealed that apparently district government is not neglecting PHC but there is requirement of defining new standards and commitment for PHC facilities to make them viable component at community level. As the conditions are

going towards better devotion from government, steps should be taken to enhance satisfaction and trust of people for public PHC facilities. This can be done by making service readiness better starting from BHU. There is dearth of real implementation of MSDS for both levels of primary health care facilities. The involvement of local community and their leadership can support a push towards a viable primary health care system.

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