#### Review Article

### Health system analysis: Pakistan and Afghanistan

### Wais Mohammad Qarani and Samina Iqbal Kanji

School of Nursing and Midwifery, Aga Khan University, Karachi, Pakistan Corresponding author: wais.qarani@gmail.com

#### **Abstract**

The purpose of this paper is to analyze the health system of the two neighboring countries i.e. Pakistan and Afghanistan; and recommend strategies to translate the available opportunities into effective actions within the countries. Therefore, the WHO, Health System Framework is used to analyze the Pakistan and Afghanistan health system in terms of; 1) leadership and governance 2) health financing 3) health workforce 4) medical products and technologies 5) information and research and 6) service delivery. Both the countries are having multiple strengths and opportunities in terms of healthcare delivery system. On the other hand, both the countries are affected by multiple challenges including; un-met Millennium Development Goals and un-met national health indicators. Thus, appropriate strategies are required to be developed and executed in order to meet the national need for health.

#### Keywords

Afghanistan, Pakistan, Health System, analysis

#### Introduction

With an ongoing increase in health challenges globally; health care delivery remains a huge area of concern for many countries. Particularly, under-developed and developing countries are greatly affected due to low socio-economic status and the double burden of disease. Health care systems should address the needs of its population with respect to their unique characteristics and demands, and it should be "population centered" (Starfield, 2009). Therefore, it is very significant to have a defined population-based collaborative health delivery system specific for a country. In addition, according to WHO (2014), a good health care delivery system essential for achieving the Millennium Development Goals (MDGs) considering the social determinants of health. As an advanced public health nurse, it is essential to recognize and analyze the health care delivery system of our country from multiple dimensions, so that efforts could be made at the national and international level to overcome the actual and potential health challenges. This paper focuses on the analysis of the health care delivery systems of Pakistan and Afghanistan.

#### Health care delivery system of Pakistan

Pakistan is sixth populated country in the world with a population of 185 million people (Nishtar et al., 2013). Hence, with the rising population, unfortunately Pakistan was unable to achieve set target indicators. Historically, the delegation of overall health policy decisions and reforms were completely owned and politically influenced by federal government since 1947. However, after the provision of 18<sup>th</sup> amendment in 2010, the responsibilities have been decentralized to the provincial level mainly the districts; as federal

government was ineffective in fulfilling national needs (Nishtar et al., 2013). Therefore, the purpose of 18<sup>th</sup> amendment was to have better management authority at the district level, so that health service is made accessible to each and every individual. The health care system in Pakistan is delivered either by public or private sector. Pakistan spends only 3.36% of its total GDP towards health, and almost 70% of the health expenses are out of the pocket (USAID, 2012). Furthermore, the utilization of primary health services by public sector is only 20%-30% of the total population as compared to the private sector (WHO, 2013). This huge difference may persist because of the several challenges which will be discussed later in the paper.

#### Health care delivery system of Afghanistan

Afghanistan is a landlocked and low income South Asian country with a population of 30.55 million (WB, 2013). Afghanistan has 34 provinces and each province is divided into districts. The health care system of the Afghanistan is managed through the Ministry of Public Health (MoPH), a central governmental body to identify health needs of the Afghan population, formulate policies and plans, mobilize resources, and establish rules and regulations for both public and private sector. Historically, the Afghan health sector has been damaged during the decades of war and instability; hence, the indicators of the country lie within lower range. After the withdrawal of the Taliban government in 2001, the Afghan MoPH took initiatives to reconstruct the country's health sector infrastructure. Thus, MoPH with the support from other partners and donor established Basic Package of Health Services (BPHS) as a base for the Afghan health care system in 2003 followed by the

establishment of Essential Package of Hospital Services (EPHS) in 2005 (MoPH, 2011). The goal of this initiative was to make health care services accessible when it was only 9% to all Afghan population including the remote areas of the country. Consequently, the BPHS initiative significantly contributed in the accessibility of health services and showed 66% accessibility during the initial three years of its establishment (MoPH, 2011).

# Analysis of the Pakistan and Afghanistan health care delivery system

This paper will analyze the health care delivery system of Pakistan and Afghanistan using the World Health Organization, "Health System Framework". This framework provides six building blocks through which work should be done collaboratively in order to achieve the four sets of success outcomes for a health system.

#### Leadership and governance

The Pakistan Ministry of Health has been demolished at the federal level after the 18th amendment. Thus, the power, autonomy, and responsibilities were delegated to provinces and districts. Despite clear set of roles and responsibilities after the devolution plan, the federal role has been fragmented and there is overlapping of functions between federal and provincial entities (WHO, 2013) which creates role confusion and conflicts. Furthermore, as the provinces had to implement the national health policies by the federal government at primary, secondary, and tertiary care hospitals with the help of districts regulatory system; the role of federal government in policy making, resource mobilization, responding to disaster emergencies etc. could be compromised due to these fragment responses.

On the other hand, the Ministry of Public Health of Afghanistan has its provincial departments in overall 34 provinces and then 355 district offices of the provincial departments. According to EMRO (2006), the Afghan health care delivery system is decentralized only at the "provincial level" (p. 20) and "there is no autonomy in the public hospitals running by the government" (p. 21). According to WHO (2014), Afghanistan has been making stable progress over the last 13 years. Moreover, Afghanistan has also developed its health mission and policy frameworks and strategies. Though having centralized health delivery system, Afghanistan has expended its primary health services to the remote areas through BPHS over the last decade. However, Pakistan is trying to struggle with the innovations of decentralization which could be made more effective by having proper health information system, and also

by strong interprovincial and public-private sector collaboration. Thus, both the countries should strive to establish strategies for better governance of health care delivery system.

#### Health care financing

According to WHO (2013), Pakistan with the economic development rank as other countries spends a smaller amount on health. Additionally, an average amount of USD 34 per capita was projected by the Commission on Macroeconomics and Health to provide crucial health packages. In 2008 only USD18 per capita expenditure on health was allocated out of which only USD4 was from the public sector. Furthermore, Pakistan is still facing the premature phase of devolution as the funds are still not adequately mobilized at the provincial level. For instance, Golding, Hall, and Shah (2011) stated that, many vertical programs like maternal and newborn health, stop TB programs, etc. are now being the responsibility of provinces after the devolution of MoH, and therefore have started raising concerns regarding the allocation of budget to keep these programs running efficiently. Therefore, proper strategies by having strong federal-provincial relations are needed to strengthen the public sector funds to help fulfill the country alleviating health disparities.

On the other hand, the Afghan government is bound by the constitution to provide free health services to the population (Article 52). The government has allocated 9.6% of GDP on health (WHO, 2011) where most of the money comes from the donors. The support to health by the donors come from two directions that is "On budget or Core budget" support that is allocated through the Ministry of Finance and "Off budget" support which is directly transferred to the ministry of public health or service provider (Health Financing Policy 2012-2020, MoPH, 2011). The financing source for health expenditure in Afghanistan comes from donors (20.8%), public (5.6%), and private (73.6%) which is out of pocket (NHA, 2013). This indicates that a great amount of health expenditure financing relies on donors besides that the maximum financing source in Afghanistan is out of pocket. It is expected that after the withdrawal of the donors from Afghanistan, the country is supposed to bear all 26.4 percent of the health expenditure that seems a big challenge being a low-income country.

### Health workforce

Human resources play a vital role in the provision of quality health care services to the society. According to Nishtar et al. (2013), at present there are 121,374 registered doctors in Pakistan,

indicating ratio of one doctor to 1217 population, which is less from the WHO recommendations (i.e. 1:1000). Similarly, the ratio of doctor to nurse is 2.7:1 which is also lower (2.7:1) than the desired ratio of 1:4. Along with this, the country is also facing the shortage of qualified pharmacists, physiotherapists, midwives, dentists, public health experts etc. Nishtar et al. added that, the number of medical, nursing, midwifery, and public health schools have increased during 1947 and 2009. Furthermore, despite 90,000 of Lady Health Workers (LHWs) working in the rural areas, it has not covered the need of the country. Rather, due to inappropriate program planning, out of time salaries, medicine stock outs, unavailability or non-functioning equipments; they still lack behind in achieving the important health goals.

Likewise, Afghanistan is much behind to address the recommended ratio of health workforce to the population. The ratio of workforce to 1000 population is 0.15, 0.14, 0.08, and 0.02 for doctors, registered registered nurses, midwives pharmacists respectively (National Strategy for Improving Quality in Health Care- NSIQHC, 2011-2015). While, WHO recommends 2.3 for doctors. nurses and midwives. Although there are number of medical universities and Institutes of Health Sciences (IHS) throughout the country that graduate medical, nursing, and paramedical professionals; there is only one university in Kabul which graduates nurses with bachelorette degree which was established in 2006 (KMU, 2013). Both the countries are facing significant shortage of human resource for the prevention diseases and promotion of health. Thus, Pakistan needs to expand budget allocation; and Afghanistan needs to develop qualified human resources to address work force need of the country.

#### Medical products and technologies

Although there are 60,000 registered medical products by 525 companies including 30 multinational in Pakistan, none of them is approved by any regulatory body (WHO, 2013). Furthermore, according to Nishtar et al. (2013), revision is needed in the Pakistan's national drug policy 1996 and the drug act 1976 in accordance with the evolving medicine, technologies and community needs. In addition, according to WHO report (2013), though the Pakistani government has generated a list of national essential medicines at different health system level, adherence to defined strategies is very poor as evidenced by extensive supply of over the counter drugs and unethical marketing practices by the physicians. Moreover, according to Dawn News (April, 2014), the telecommunication authority has declared that the use of mobile phones has reached to

132 million in Pakistan. Nishtar et al. (2013), affirm that the public sector has not used this opportunity effectively as an approach to spread the health related information and public awareness towards prevention and treatment of diseases.

On the other hand Afghanistan has allocated specified medical and non-medical supplies, equipment, and pharmacological products according to the level of health facilities under BPHS and EPHS guidelines. The implementing partners are required by the MoPH to adhere with these guidelines and meet the defined standards. The supplies are categorized as basic instruments, simple equipment, anthropometric equipment, and more complex equipment. It is interesting that the defibrillator is only available at regional hospitals (EPHS, 2005), which hinders provision of more complex emergency care to the patients at provincial level. Laboratory and radiological services in Afghanistan starts from basic at CHC and district level to the most complex diagnostic services at provincial and regional level hospitals. The availability of medical technology is also dependent on the level of health facility to tackle the need of a particular catchment population (EPHS, 2005).

#### Information and research

According to World Health Organization Western Pacific Region (2014), Health Information system is essential for the health care providers, policy makers, and health program planners to track the health status of individuals and outcomes. In Pakistan, the Health Monitoring Information System was started with the help of USAID in 1992. The surveillance of public health is still fragmented, and is not able to be used effectively for crucial community/public health decisions (Afzal &Yusuf, 2013). Moreover, according to Nishtar et al. (2013), after the 18th amendment, the country information system has become more fragmented, HIS has not been prioritized and no efforts have been put to include the data of the private sector in this regard. Furthermore, WHO (2013) reports that, there is a lack of health policy relevant and evidenced-based researches to promote management resolutions so that more efficient decisions could be made for low resource, poor, and vulnerable population.

On the other hand, Afghanistan has a national Health Management and Information System (HMIS), which collects information on BPHS services, CHW activities, reports, administrative data, HR database, Grants and Contracts database, and inventory of health facilities. The HMIS department coordinates its activities with the department of monitoring and evaluation, NGOs, and UN agencies through a taskforce (HMN, 2007). There is one

provincial HMIS office in each 34 provinces which coordinate tasks with central office. Although research is not adequately developed in Afghanistan; the MoPH has a department on surveillance and research under the Afghan Public Health Institute to oversee and engage in research activities within the country.

#### Service delivery

The public sector mainly comprises of Basic Health Units (BHUs), Rural Health Centers (RHUs), Tehsil Headquarters hospital, District Headquarters Hospital, and tertiary care hospitals. However, very few centers are functional because of multiple issues like political will and unavailability of resources (Hameed, 2008). The vertical programs of the countries are mostly covering the prevention of diseases like National Aids and Tuberculosis programs, and immunization programs. However, the private centers have independent secondary and tertiary care hospitals, NGOs, Homeopaths, Herbalists, Hakeems etc. In addition, according to Shaikh et al (2012), despite having 919 hospitals, 5334 BHUs, 560 RHUs, 4712 dispensaries, 905 Maternal and Child health centers: utilization of these facilities is insignificant due to weak structural management, low resources, and insufficient funding.

On the other hand, according to NSIQHC 2011-2015, in Afghanistan the delivery of health services are at five levels which includes: 1) Community level through volunteer CHWs 2) Health Sub Centers and Mobile Clinics, 3) BHCs, CHCs, CHC+, and DHs, 4) Provincial and Regional Hospitals, and 5) Specialty and national Hospitals. Unlike Pakistan, majority of the Afghan health services are delivered by the international and national NGOs, but supervised by the MoPH (NSIQHC, 2011-2015).

## Health indicators and Millennium Development Goals

The health indicators of a country denote the health status of that particular population. Although Pakistan does not rank optimum in its indicators; the situation of Afghanistan's health indicators are much worse. According to WB (2013), the growth of population in 2013 was 1.7% in Pakistan and 2.4% in Afghanistan. This is the fact that the birth rate per 1,000 people in 2012 was 26 in Pakistan and 35 in Afghanistan. On the other hand WB reports that life expectancy in 2012 was 67 years for female 66 years for male in Pakistan; and 62 years for female and 59 years for male in Afghanistan. Life expectancy reflects the quality and accessibility of the health care system to the society including the underserved communities. Moreover, only 49% of the births are

attended by skilled birth attendants in Pakistan during the year 2012; while it was 39 % during the year 2011 in Afghanistan (WB, 2013). Thus, maternal mortality in 100,000 live births in 2013 was 170 in Pakistan and 400 in Afghanistan. Although, the ratio is higher in Afghanistan; it is a considerable decrease from the baseline estimate of 1,600 in 2003 (WB, 2013). Hence, both the countries are still struggling to achieve their Millennium Developmental Goals by the end of 2020 which is a big challenge indeed. Therefore, it is pivotal for both the countries to design strategies to strengthen health indicators.

## Challenges faced by the health sector of Pakistan and Afghanistan

Pakistan and Afghanistan, being developing countries, face some of the mutual burden of challenges in terms of governance, human resource, health information system and service delivery. In Pakistan the major culprit in the progression of brain drain is the country itself, where the workers are not able to fulfill basic necessities, face unemployment, lack of promotion, professional development (Afzal, Masroor, Shafqat, 2011). Furthermore, poor service delivery is another highlighted issue for both the countries due to structural in-competencies or non-functional units. In Afghanistan a big challenge is the centralization of government. According to Habib (2013), due to centralized structure, there is no existence of planning and budgeting at the provincial level, which could lead to lack of actions at the local level. On the other hand Pakistan fortunately has the de-centralized system, but due to weak policies, poor information management, and lack of check and balance; the country health system has to face many problems. Additionally, according to Zafar and Malik (2014), lack of inter-sectoral collaboration is another big challenge mostly faced by both the countries. Moreover, according to them, in order to fight against the burden of Communicable and Non-communicable Diseases, strong public-private sector and federalprovincial- district partnership is needed more than the integration of modern health care. Other than this, another big challenge faced by both the countries is the corruption of health care system. According to Habib (2013), in Afghanistan corruption is prevailing at each level of the local government, and also influence of powerful people can be seen in every aspect of the country. Likewise, Pakistan ranks 134 among 180 on corruption index countries (Nishtar et al., 2013). Additionally, both the countries are having poor socio-economic profiles, which can also prove to be a major hindrance in the allocation of health related resources at the peripheries. For example: according to Kakakhel (2014), 60.19% of Pakistani

population lives below poverty line i.e. earning less than Rs200/day. On the other hand, according to WHO (2010), only 28% of the Afghan population is literate. These statistics pose a great challenge to the health industry even if the country is having free health services.

#### Recommendations

In order to overcome the above mentioned challenges, a strong collective approach is needed at each level of the health system hierarchy. Firstly, the governments should work collaboratively by introducing strategies to retain human resource within the country. According to Nishtar et al (2013), Pakistan does not have its own human resource policy. Therefore, a collaborative policy should be made according to community professionals' needs, which could work for the retention system, continuous education, incentive provision, and promotion of staffs. Additionally, we believe that there should be a strong link between the vertical and horizontal programs working in both the countries. This could be done by using technology as their main asset, and having centralized electronic data system that could be accessed for surveillance and health promotion by having true health indicators. With this, the government should take this initiative to introduce e-health within the country, so that health information could become more accessible and dispersed. Also, the government of both the countries should work strongly for the strong quality checking and monitoring authorities, so that corruption in health care should be reduced at a remarkable extent. Other than this, public sector spending on health of its people should be done cautiously. Health should be considered as an important factor for the success of a country, and therefore proper funds should be allocated. Moreover, efforts should be made to think on preventive measures for health progression rather than working only on curative domain. On the other hand, aggressive safety nets should be programmed

in by both the countries in the form of insurance schemes, so that social security could be optimized. The provincial and district levels should work for the public-private partnerships by having programs that could involve leaders from both the sides working for the same goals. Transparency in the health care should be the ultimate goal of both the countries by having proper medicine supplies, and medical equipment. This could be done by adhering to international standards and quality check agencies. Lastly, in order to make above mentioned recommendations sustainable, both the governments should work for the improvement of its socioeconomic factors so that double burden of disease could be prevented.

#### Conclusion

From the above mentioned analysis, it can be concluded that both the health care system are facing disparities at their own ends. Decentralization is not a challenge, but can prove to be the strength of Pakistani health care system if utilized appropriately. Moreover, most of the developed countries of the world are having centralized health system, but are having good health outcomes because of adequate human resource, governance, education, and utilization of resources. However, holistic efforts should be made by each and every regulatory body to have sustainable health outcomes by having proper strategic planning.

#### Acknowledgement

We would like to acknowledge the expert view of Dr. Tazeen Saeed Ali, professor at the Aga Khan University School of Nursing and Midwifery

#### **Conflict of interest**

This manuscript is a joint and equal effort of both the authors, written in partial fulfillment of the Masters of Science in Nursing (MScN) degree. No finance was involved in the completion of this paper.

#### References

- Afghan Const. *art.* 52. Chapt. 2. Retrieved from http://moj.gov.af/en/page/1684.
- Afzal, S., Masroor, I., & Shafqat, G. (2012).
  Migration of health workers: a challenge for health care system. *J Coll Physicians Surg Pak*, 22(9), 586-587
- Afzal, U., & Yusuf, A. (2013). The State of Health in Pakistan: An Overview. The Lahore Journal of Economics, 18(SE), 233-247.
- EMRO (2006). Health Care System Profile: Afghanistan.

- EPHS (2005). The Essential Package of Hospital Services for Afghanistan.
- Golding, S., Hall, S., & Shah, F. (2011). Maternal and newborn health: the policy context in Pakistan. Islamabad, Pakistan, Research and Advocacy Fund.
- Habib, S. (2013). *Local Government in Afghanistan: How it works and main challenges*. Retrieved from
- Hameed, A. (2008). Health-Care Delivery System and Reimbursement Policies in Pakistan. *Value in Health*, *11*(s1), S160-S162.

- HMN (2007). [Afghanistan] Health Information System: Review and Assessment.
- Kakakhel, I. (2014, June 3). Earning \$2 a day, 60.19% population live below poverty line. *Daily Times*. http://www.dailytimes.com.pk/business/03-Jun-2014/earning-2-a-day-60-19-population-live-below-poverty-line
- KMU, (2013). *Kabul Medical University Webpage*. http://kmu.edu.af/en/page/5704
- Maury, H. (2005). Linking Relief, Rehabilitation and Development Programme (LRRD) in Afghanistan: Different quality approaches in the Afghan health system.
  - http://www.urd.org/IMG/pdf/Different\_Q\_approache s\_in\_Afghan\_Health\_System.pdf
- Dawn News Pakistan. (2014, April 4). Mobile phone users range 132 million in Pakistan. http://www.dawnnewspakistan.com/mobile-phone-users-range-132-million-in-pakistan/
- MoPH (2011). Naitonal Strategy for Improving Quality in Health Care 2011-2015. MoPH: Afghanistan
- NHA, (2013). National Health Account Afghanistan 2011-2012: Preliminary Findings.
- Nishtar, S., Boerma, T., Amjad, S., Alam, A. Y., Khalid, F., & Mirza, Y. A. (2013). Pakistan's health system: performance and prospects after the 18th Constitutional Amendment. *The Lancet*, 381(9884), 2193-2206.
- Peters, D. H., Noor, A. A., Singh, L. P., Kakar, F. K., Hansen, P. M., & Burnham, G. (2007). A balanced scorecard for health services in Afghanistan. *Bulletin* of the World Health Organization, 85(2), 146-151.
- Shaikh, S., Naeem, I., Nafees, A., Zahidie, A., Fatmi,
  Z., & Kazi, A. (2012). Experience of devolution in district health system of Pakistan: Perspectives

- regarding needed reforms. JPMA-Journal of the Pakistan Medical Association, 62(1), 28.
- Starfield, B. (2009). Primary care and equity in health: the importance to effectiveness and equity of responsiveness to peoples' needs. *Humanity & Society*, *33*(1-2), 56-73.
- USAID. (2012). Health Systems Governance Challenges and Opportunities after Devolution (Policy Briefs Series No. 29).
- WB (2013). World development indicators. *Afghanistan*. http://data.worldbank.org/country/afghanistan
- WHO, (2011). Afghanistan Total expenditure on health as percentage of GDP. http://www.who.int/countries/afg/en/
- WHO, (2014). *Health systems*. Retrieved from http://www.who.int/topics/health systems/en/
- World Health Organization. (2012). *Afghanistan*. Country Cooperation Strategy website: http://apps.who.int/iris/bitstream/10665/108864/1/W HO\_CCO\_13.01\_Afghanistan\_eng.pdf
- World Health Organization, (2014). Afghanistan.
  Retrieved from Country Cooperation Strategy website:
  http://www.who.int/countryfocus/cooperation\_strategy/ccsbrief afg en.pdf
- World Health Organization. (2013). Country cooperation strategy for WHO and Pakistan 2011-2017. http://apps.who.int/iris/handle/10665/113228
- WPRO, (2014). *Health information*. http://www.wpro.who.int/topics/health\_information/e
- Zafar, M., & Malik, A. (2014). Emerging Challenges and Health System Capacity: The Case of Non-Communicable Diseases in Pakistan; a Review. *J Infect Dis Ther*, 2(127), 2332-0877.