HEALTHCARE IN PAKISTAN–A SYSTEMS PERSPECTIVE

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ABSTRACT

Health system in Pakistan has witnessed evolution and dates back to the medieval, traditional health care, health for all approach, primary health care approach and health systems strengthening approach for better health outcomes. The main objectives of health system are improvement in health, fairness in distribution of risk and finances and responsiveness to the non medical needs of the population. With decreasing expenditure on health care, booming private health sector and flourishing pharmaceutical industry, government can only reduce catastrophic health expenditures by the poor and impoverished through an efficient, effective, accessible and responsive public health system. Inter sectoral collaboration, community participation, social protection, equitable distribution of resources, people centric health policy, health work force development, evidence based health information system and quality assurance of essential medicines will strengthen health system in Pakistan.

Keywords: Equity, Fair financing, Health system, Pakistan, Responsiveness.

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BACKGROUND

Pakistan is at major intersection in terms of relation between health and development, being the 6th most populous country with a growth rate of 1.91% per annum and a total population of 191.71 million[1]. Major portion of population is residing in rural areas but due to swift urbanization there has been surfacing of mega cities such as Karachi and Lahore which have caused various social and cultural changes. Until 2015 annual growth rate of urban areas is 3.1% with 37% of total population residing in urban areas[1]. Pakistan being part of the National democratic system is composed of four states which are Punjab, Baluchistan, Khyber Pakhtunkhwa ,Sindh and one minor state which is Gilgit-Baltistan[2]. On Human development Index (HDI), Pakistan is positioned at 110 out of a total of 186 countries and has a per-capita income of $1,512 in total[1] but still Pakistan has impoverished and weak position all across the globe. Fifty five percent of females (> 15 years of age) are uneducated positions Pakistan at 123rd out of 186 countries on a Gender Inequality Index (0.567). Life expectancy for a person is 63 years in Pakistan where as 36% of the residents are below the age of 15 years. Only 48% of the inhabitants have access to sanitation[2]. This paper aims at reviewing different eras of health care delivery system in Pakistan and phases of evolution vis–a– vis building blocks with a view of health system strengthening.

Satisfactory attention was not given to the health of the population by British government before partition and their only focus was on government employees. Till 1970s all the health care system was controlled and monitored by local government bodies. Along with the introduction of 2nd Five Year Plan of 1960 to 1965 National Health planning was also commenced which covered Medical Reform Commission, Family planning program, Rural Health Centre Scheme and Malaria eradication programme. Preventing programs focusing on tuberculosis and small pox were a part of 3rd Five Year Plan. Successively a 4th Five Year Plan for 1970 to 1975 was introduced focusing on infrastructure of Health care system and other programs were included namely Expended Program for Immunization (EPI), malaria and tuberculosis control programs. On

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the other hand supervision and monitoring duties were assigned to National Institute of Health (NIH) with inclusion of pneumonia and diarrhea control programs. Subsequently rural development programs were the focus of 6th Five Year Plan whereas organization of basic health units (BHU), family heath care, rural health centres (RHC), MCH services and primary health care were an essential part of 7th Five Year Plan (1988 to 1993). Finally 8th Five Year Plan initiated the Health Management Information System (HMIS), Prime Minister's programme for family planning , social action plan and primary health care[3].

In 2001 there was decentralization of political and managerial authority of 135 districts in Pakistan which were placed under the local governance system. This restructuring was envisioned to authorize local society and increase the efficacy of government but failed due to enmities for authority between states and districts[4]. But the modifications staggered after half completion during 2002 to 2009 and after July 2009 provincial governments of 3 provinces announced their plans to regress back the administrative measures to pre 2001 setup[5]. With a vision to execute authority related reforms Pakistan's Ministry of Health was abolished on June 30th 2011 and various federal responsibilities related to health sector were allotted to other seven ministries. In order to increase service delivery and augment heath care facilities at grassroots level health sector was decentralized which aimed to make progression in monetary and organization authority at provincial level[5]. In 2012 Ministry of National Regulations & Services was re-established whose capacity was later extended to Ministry of Health Service Regulations & Coordination. The various tasks of ministry are mentioned below[6]:

- National & International Coordination in the field of Public Health.
- Oversight for regulatory bodies in health sector.
- Population welfare coordination.
- Enforcement of Drugs Laws and Regulations.
- Coordination of all preventive programs, funded by GAVI/GFATM (TB, HIV/AIDS, Malaria, Hepatitis etc.).
- International commitments including attainment of MDGs.
- Infectious disease quarantine at ports.
- Coordination of Hajj medical mission.

Table-1: Trends in public sector health care expenditures (Source: Economic Survey of Pakistan 2014 -15).

Pakistan Fiscal Years	Total health expenditure (millions of PKR)	Health expenditures as % of GDP
2000 - 01	24.28	0.72
2003 - 04	32.81	0.57
2005 - 06	40.00	0.51
2008 - 09	74.00	0.56
2010 - 11	42.00	0.23
2011– 12	55.12	0.27
2012– 13	125.96	0.56
2013– 14	173.42	0.69
2014–15	114.22	0.42

Table-2: Types and numbers of health care facilities in the country (Source: Economic survey of Pakistan 2014-15).

Health Manpower	2011-12	2012-13	2013-14	2014-15
Registered doctors	152,368	160,880	167,759	175,223
Registered dentists	11,649	12,692	13,716	15,106
Registered nurses	77,683	82,119	86,183	90,276
Population per doctor	1,162	1,123	1,099	1,073
Population per dentist	15,203	14,238	13,441	12,447
Population per bed	1,647	1,616	1,557	1,593

- Provision of medical facilities to the Federal employees in provinces.

DISCUSSION

Health system is defined by the world health organization (WHO) in the report of 2000 as "all the organizations, institutions, and resources that are devoted to producing health actions"[7]. As it is expected from the health systems to efficiently and effectively serve the needs of population the WHO included these efforts to influence various factors of health sector[8]. Main objectives of health system are to improve health of the population, fairness in financing and risk distribution and responsiveness to the non medical needs of the population[7]. Figure-1 shows different building blocks with a people centric paradigm with special emphasis on health system strengthening[9] . Figure-2 shows the interactions between different integrated components of the health care system of Pakistan. Three institutions which facilitate in providing finances are vertical as they also provide services for distinct clienteles namely employee and their dependants and also have reciprocally restricted service providing governance, infrastructure and human resource. The financing approach by these institutions is:

- The armed forces health care delivery system is financed by revenues covering 6.18 million individuals also known as the parastatals[3]. The health of 9.10 million retired military servicemen is supported by the Fauji Foundation system which generates finances commercially in order to maintain a social protection system[10].
- A horizontally integrated health insurance system is formed under the Employee Social Security Institute (ESSI) which provides finances to the workforce in private industrial and commercial sectors comprising of more than 10 employees working under the predetermined salary scale. This approach comes under the Labor Directorate and is completely outside the jurisdiction of Health department[3].

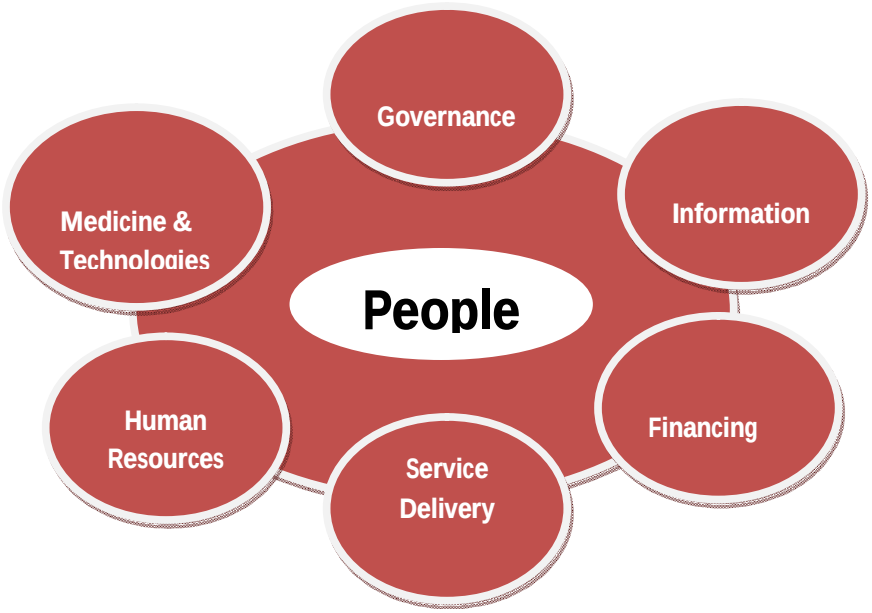

Figure-1: The health system building blocks-interconnectedness and architecture (source: systems thinking for health systems strengthening, world health organization.)

Figure-2 also shows the other two Horizontal systems which are namely 'government autonomous organizations' and 'commercial entities' which offer coverage to 4.14 million

individuals through pooling whereas apart from this there is mixed health system comprising of public and private suppliers[11].

The Public Health Care System

Fig-2 highlights the public health delivery system which acts as an incorporated health composite which is organizationally supervised at district level. Health care is provided by using a three tiered system of healthcare delivery along with other various public health interventions. The Primary Health system comprises of BHUs and RHCs. On the other hand the secondary health care comprising of first/second referral services offering acute, inpatient ambulatory care is provided at Tehsil/Taluka headquarter hospitals (THQ) and District headquarter hospitals (DHQs) which are assisted by teaching hospitals (tertiary care). Maternal and child health care are also a part of this integrated health system but the number of such healthcare units is limited. Such maternal and child health care units, BHUs and RHCs provide all the basic obstetric care through community outreach programmes delivered by the lady health workers and community midwives.

The Private Health Care System

Doctors, traditional healers, pharmacists, drug vendors, nurses along with shopkeepers, unqualified practitioners and laboratory technician comprise the private health care system[12]. Out of total spending on health care the private spending in Pakistan is estimated to be 70 % out of which 98 % expense is borne by the households[13].

Application of Six Building Blocks in Pakistan Health System

Oversight & Authority

The most recent public initiative taken is the National Health Policy of 2001 which is still under incessant revision[14]. Association with Heart File – an NGO led to the formation of new health policy but it remained unapproved until the devolution of Ministry of Health. All the three policies related to health had a common theme i.e "Health for All" or worldwide coverage via community participation[15]. Various new programs, legislative actions and initiatives have been initiated on federal, provincial and district levels under health legislation with exception of Drug Act of 1976. Pakistan Medical and Dental Council (PMDC), Pakistan Council of Homeopathy, Pakistan Nursing Council and Council of Tibb comprise the main health regulatory bodies[4]. There has been a greater focus on conceding executive and financial sovereignty to the government hospitals particularly in Punjab and KP in order to improve the quality and extent of services with fairness in distribution of risk and financing[16].

Financing

One of the major difficulties faced by the healthcare policy makers, is the provision of health facilities to 190 million population in Pakistan out of which majority cannot have enough funds to buy the health care facilities they deserve. In order to assign expenditure on health care services an impartial financing system should be implemented[17]. The contribution of public and private sector in Pakistan is 9.31per capita and 24.80 per capita US Dollars respectively[13]. Also the public spending is quite below the internaltion recommendation of US $ 60 per capita[18]. Although that there has been progressive increase in the government spending on health care over past years by government yet its ratio in terms of Gross Domestic Product (GDP) and Gross National Product (GNP) has remained stationary. While considering the GDP spending on health in terms of percentage, there has been a momentous decrease from 0.69% to 0.42% from 2013 to 2014 respectively[19] (table 1), contrary to 5% of GDP expenditure on health as recommended by WHO.

Human Resources

There has been a twofold increase in the number of doctors, dentists, nurses and lady health workers over the last decade while the health care workers with respect to population have also witnessed a considerable development. There are 175,223 registered doctors (one doctor for 1,073 individuals) and 15,106 dentists (one dentist for 12,447

individuals)[19] (table-2). On the other hand registered nurses and qualified health visitors are 90,276 and 15,325 respectively.

Service Delivery

Pakistan's hospitals presently have 118,041 beds which form a population to bed ratio of 1,593. Total number of hospitals in country are 1,142 whereas; the dispensaries are 5,499 in total. Rural residents have to face a problem of inferior health facilities as majority of the doctors and hospitals are situated in big cities. BHUs amount to a total of 5,344 which are located in rural areas of Pakistan[19]. It was stated by government of Pakistan in 2007 that there is only one hospital accessible to 170,000 individuals and in case of RHCs only one center is there for 4,400 expectant mothers and newborns[4].

Health Information Systems

With an aim to help the mid level and senior level managers in making evidence based decisions a basic health service cell was formed known as the Health Management Information System (HMIS) by Federal Ministry of Health in 1990s[20,21]. The capacity of HMIS is restricted and only first level health care facilities are provided with no focus on collecting data neither from in patients nor from private hospitals except from the Provincial Heath Department[22]. When it comes to various health information systems there is lack of coordination and duplication in systems because HIMS seems to be more focused on data rather than actions[21].

District Health Information System

A study was conducted by Japan International Cooperation Agency (JICA) on the demand of Pakistani government from 2004 to 2007 for the development of Management Information in Health Sector[22]. After conducting the study a new health information system was introduced known as the District Health Information System. National Action Plan (NAP) for DHIS was approved for the nationwide implementation. This new and improved system is better and more efficient than the previous one as it tends to focus on gathering and collecting information and data from secondary hospitals and health care units at other levels.

Medicine & Technologies

The act which supervises the pharmaceutical sector of Pakistan is the Drug Act of 1976 which provides a detailed document covering extensive conditions on providing licenses in pharmaceutical industry, registration procedure for drugs and quality control etc. The issues covering the three levels

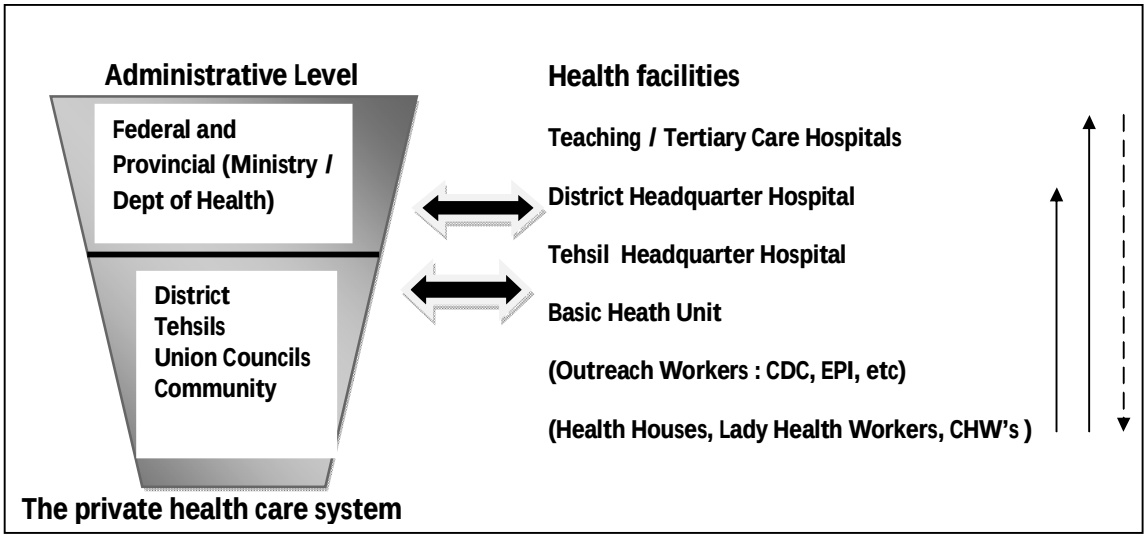

Figure-2: Illustration of public health care delivery in pakistan (source: health systems profile–Pakistan, WHO).

of regulations related to quality, price and intellectual property rights (IPR) are regulated by Drug Regulatory Authority of Pakistan (DRAP) which was formed under the DRAP Act of 2012 and assists in organizing and implementing the Drug act of 1976 (XXXI of 1976)[23].

The requirements for the medicines up to 70% are met by local production and remaining 30% through imports [24]. Even though at the time of independence there was barely any pharmaceutical industry in Pakistan but now there are 30 International and 411 local units involved in the manufacturing of pharmaceuticals. There are also various authorized provisions for controlling the pharmaceutical industry and the total spending on the industry in 2007 was up to 12,000 PKR million which translates into 1,844 million US Dollars where as the per capita spending on pharmaceutical industry is 6,89 PKR with annual growth rate (2009) of 20%[25].

The policy covering the selection of essential medicines, prices of medicines, procurement, allocation, regulation, balanced use of medicines, human resource development, pharmacy co-vigilance, research, supervision, assessment and conventional medicine is the National drug policy. Although a national drug policy exists in Pakistan but non implementation has led to its virtual non existence[26,27].

CONCLUSION

In order to achieve overall improvement in health, fairness in risk distribution and financing and responsiveness to the non medical needs of the clientele by the health system in Pakistan, it is imperative to create strong inter-sector agencies, norms and standard setting for health care delivery, quality assurance in the pharmaceutical industry and more collaboration with the private health care sector. To provide direction and proper oversight a strong stewardship function is necessary. Public private partnership may strengthen the stewardship role of the government in terms of bringing good governance and promote more responsiveness in Pakistan health system.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

AUTHORS CONTRIBUTION

Syed Fawad Mashhadi: conception of the idea, literature search and drafting of manuscript Saima Hamid: critical reviewing and final approval; Rukhsana Roshan: literature review; Aisha Fawad: literature review and typesetting of the manuscript.

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