#### **Comparative Analysis**

# **Comparative Analysis of Health Care System:**

Pakistan versus Japan

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#### Abstract

One of the important responsibilities of the health care system is to meet the health needs of the population mainly through health promotion and disease prevention initiatives. This objective can be achieved through an equitable resource distribution/allocation. This paper comprises of comparative analysis of health care system of two countries i.e., Pakistan and Japan in relation to the WHO recommended guidelines on Health care system. The analysis consists of organizational environment, health care delivery model, health information management system, health indicators, financing, and workforce of both the countries. This analysis suggests some strategies to overcome the shortcomings for both the countries.

#### Key words

Health care system, Pakistan, Japan, analysis.

#### Introduction

# Overview of Health Care Delivery System of Pakistan

Pakistan is a democratic state with an estimated population of 184.5million, making it the sixth populous country in the world<sup>1</sup>.The country is plotted into five provinces and tribal areas. Pakistan has not remained safe from natural disasters such as flood and earthquake and it leaves destructions and suffering every year. Moreover, constant increase in growth rate that is 2% every year is a big challenge for the health department to provide health care to the population<sup>1</sup>. The ministry of health of Pakistan envisions establishing efficient, equitable and effective health system to ensure health services that are acceptable, accessible, and affordable. It supports its population to improve their health status through health education and disease prevention programs. When Pakistan came into being in 1947, there were only 292 hospitals in big cities; while rural areas had no health care facility. However, the number of health facilities in the country gradually increased and reached to 1096 tertiary care facilities by 2011<sup>2</sup>.Moreover, according to the Pakistan economic survey 2014, there are 5527 basic health units (BHUs), 650 rural health centers (RHCs), and 5310 dispensaries in the country to provide primary health care services to the population. The health secretariat is main authority that develops health policies, legislation, monitoring, and implementation strategies.

Pakistan spends only 0.6 to 0.7% of its GDP for provision of health services to its population that is not sufficient to fulfill the health needs of its huge population<sup>2</sup>. Pakistan has a number of health promotion and disease prevention programs since 1960s including family planning, T.B., Polio, malaria, HIV, Hepatitis, diarrhea and pneumonia control programs. Despite all the efforts, Pakistan is still suffering from communicable and both noncommunicable diseases. The country has successfully eradicated small pox, but could not eradicate polio yet. Hepatitis B & C infected cases and the burden of noncommunicable diseases such as heart diseases, diabetes, cancer, and mental illnesses is in rise.

The national health information and management system (HIMS) is to maintain the data at national level is developed at district level. Currently out of 134 districts the staff from 80 districts has been trained to operate HIMS at district level.

# Overview of Health Care Delivery System of Japan

Japan is a centralized state with an estimated population of 122 million, making it the tenth populous country worldwide<sup>3</sup>. The features of health care system are worth for attention as it provides equitable access to its entire population. Japan's health care system characterized by universal coverage, free choice of health care providers by patients, a multi-player, employment-based system of financing, and a predominant role for private hospitals, and fee-for-service practice.

Japan has national strategic plan for health care delivery system which includes five major areas: Health Promotion Plan. Medical Care Plan, Insured Long-term Care Service Plan, Basic Plan to Promote Cancer Control, and the Medical Expenditure Optimizing Plan. The ministry of health, labor, and welfare is responsible for making policies and formulating the national health care plan. Universal health insurance coverage is the great pillar of Japan health care system; all Japanese are protected under health insurance system bv government. employee-based It has insurance system that leads clinical decision making by physicians. A "no fault" system is used to ensure patient safety and reduce medical errors. Another unique feature of health care system is that physicians prescribe pharmaceutical products from their own hospital or clinic based pharmacy system, which ultimately

boosts revenue generation for the health care system/industry.

## Analysis of Pakistan versus Japan Health Care Delivery System

## **1.** The Organizational Environment

Pakistan health care system entails both private and public health care facilities. Public health care facilities have threetiered: primary, secondary, and tertiary care services. Lady Health Visitors (LHVs) and doctors at rural health centers and basic health units mainly provide primary care services with an upward referral pathway to tehsil headquarter and District Head Quarter (DHQ) hospitals for secondary care. Pakistan also has well-equipped tertiary care teaching hospitals; however, these facilities are only available at big cities of Pakistan. Similarly, in comparison with Japan, its health care services are also provided by both public and private hospitals and clinics run by physicians; among the total number of hospitals and clinics, 18% hospitals and 5% clinics are public<sup>3</sup>. It indicates that in Japan, most of the health care services have provided by the private sector. Primary care has delivered through local solo-based clinics and specialty care has been provided through hospitals including medical schools, government specialty centers, and major urban hospitals. In addition, the main goal of Japan's health care organization is to reduce health expenditures through insurance-based system. They have great integration between primary care clinics and complex care facilities to manage chronic diseases. While on the other hand, the government of Pakistan is dedicated to increase investment in health in order to the growing demand fulfill of its population. In Japan, there is a great competition between hospitals to attract patients through the provision of quality care and decreased waiting time for needed care. In addition, another exceptional feature of Japan health care system is that it operates the highest per capita number of

computerized axial tomography scanners in entire world. Profit-owned the organizations strictly prohibited in Japan; policy makers have laissez-faire style of leadership and health consumers have free choice for their physicians. Most of the physicians and nurses are private employees independent and they do practices.

However, in Pakistan the health care system is managed by federal health ministry and provincial health ministry. Moreover, Pakistan has an excellent infrastructure of teaching hospitals. medical colleges, and nursing schools to fulfill the training requirement of the health force for the country. It also has public health schools and Para-medical training institutes. The medical and dental colleges and nursing colleges/schools are registered with Pakistan Medical and Dental Council (PMDC) and Pakistan Nursing Council (PNC) respectively. In 2010, the 18<sup>th</sup> amendment in the constitution has changed the way forward of the health delivery system as the federal health ministry dissolved and power and autonomy has been given to provincial government to fulfill the health care needs of the people. WHO has developed a framework for this devolution plan and provided technical support to sustain managerial aspects that needs to be strengthening at provincial and district level.

# 2. Japan's Health Care Delivery Model

Japan has an exceptional health care delivery system if compared with other industrialized countries worldwide. The rural health services plan has implemented to provide services to the remote areas such as residents in islands and mountains. In addition, like Pakistan, Japan also has primary, secondary, and tertiary care hospitals to provide health services. Furthermore, Japan has natural disaster management team and emergency helicopters to provide emergency rescue services to the public. On the other hand, Pakistan has also established disaster management cell but it is not fully functioning. Pakistan has also expanded its network of public sectors facilities, human resource. It is further supplemented by private sector hospitals in order to serve the fast-growing population's health needs. In Pakistan public sector hospitals are financed by the public taxation while in the private sector expenditure for health services goes out-of- pockets by the clients. The public-sector health care system is composed of four tires: (I) outreach community base activities focus on immunization and family planning; (II) the primary care facilities that emphasis on preventive care (III) the Secondary health care facilities for inpatient and outpatient care; and (IV) tertiary care hospitals for specialized care. The private health services sector includes small office type clinics of general practitioners, maternal and child health centers, dispensaries and diagnostic laboratories small and medium-size hospitals. In addition, there is tertiary care private hospitals mainly located in the major cities.

# **3. Health Information Management** System (HIMS)

The national health information and management system is a tool to collect, transmits, and analyzes information from al all health care units. It also assists the policy makers to develop and prioritize health needs of the population.

In Pakistan, during 2011-2012, WHO provided support for developing and improving the national health information and management system and training of staff? The health information management (HIMS) system has been established in district however, this HIMS system has not implemented effectively due to a less number of trained staff and fiscal resources. On the other hand, Japan has maintained an excellent electronic record of all the health care consumers and is regulated and monitored by the government. Japan government has made compulsory for every health care organization to maintain tele-health record of every patient that is easily accessible for every health care provider. It helps doctors and nurses in early diagnosing and treatment of underserved areas; however, unfortunately, Pakistan does not have such a system where physician or nurse can access patient's health status from far areas.

# 4. Health Indicators

Health indicators are important tools, which reflect the public health status and highlight the risk factors that need to be addressed by the policy makers. Each country is trying to achieve better health indicators in comparison of other countries.

Mortality indicators particularly infant, child under five years of age are the significant indicators to assess the health status of any country. According to World Health Statistics (2012), in Pakistan, infant and under-five years mortality rates are 69 and 86 deaths per 1,000live births respectively<sup>4</sup>. Whereas, Japan has much better indicators in this regard as compared to Pakistan; as evident by the data, the infant mortality rate is 2.00 and under five years mortality rate is 3.00 per 1000 live births respectively<sup>3</sup>. In addition, life expectancy is another important indicator, which depicts effective implementation of health promotion and disease prevention strategies at national level. According to World Bank (2013), analysis, in Pakistan, life expectancy at birth is 65% whereas in Japan it is 84%. It clearly indicates that Japan has much better public health status in terms of highest life expectancy as compared to Pakistan. Further the total fertility rate that is 3.3 per female in Pakistan is also high in comparison with Japan where it is 1.41 per female. This increase fertility rate depicts the health status of the women and growing number of population. In addition, birth assisted by Skilled Birth Attendants (SBA) in Pakistan is only 43.30% as compared to Japan where

99.80% mothers are assisted by (SBA)<sup>3</sup>. It shows that Japan has an excellent maternal health status as compared to Pakistan in terms of low fertility rate and the total number of deliveries conducted by skilled birth attendants. Therefore, maternal mortality rate in Japan is only six per 100,000 live births<sup>4</sup>. The other hand in Pakistan maternal mortality rate is 170 per 100,000 live births in Pakistan.

# 5. Resources (Budget, Human, and Material)

### Health Care Financing

In Japan, expenditures on health care are significantly paid by the government, which is funded by the social security systems. Japan has also a multiple payer system for health expenditures at national level, which helped the entire population in terms of accessibility of health care services. Every citizen must have an attachment with one or other insurance plan that includes all aspect of health care including dental care, maternity care, and long-term care.

On the other hand, Pakistan does not have such strict system for health insurance for every citizen; in long run the quality health care services would be accessible only to those who are rich and who can afford it. In addition, Japan spends 9.6% of its GDP on public health expenditures; and the entire population gets benefit from equitable access to all health care facilities. On contrary Pakistan spends only 0.6% of total GDP on health expenditures; however, the expenditure is stagnant in terms of inflation rate and population growth. In Pakistan, appropriate budget allocation for health and social development is very crucial as healthy nation can contribute for economic growth and prosperity. To improve the health status and reduce the burden of disease the United Nations (UN) has recommended increasing health expenditure at least 2 percent of GDP by 2018. Another important aspect of health care financing in Pakistan is Bait-ul-Mal

(PBM) in assisting poor, widows, and orphans for medical treatment<sup>2</sup>.

### Health Workforce

Access to quality health care is highly dependent on the efficient health work force of the country. Health workers particularly doctors and nurses are the corner stone of the health care delivery system in every country. The mobilization and strengthening of human resource for health has been neglected in a number of poor countries; however, it remains a key indicator in combating health crisis in a number of countries. According to WHO international standards, the ratio of doctors to nurses should be 1:3; however, this situation is reversed in Pakistan, i.e., ratio of doctors to nurses is 3:1. In addition, the number of physician per 1000 population is 0.83 and nurse midwives are 0.57 per 1000 population. In comparison, Japan has better physician and nurse ratio 2.30 per 1000 people and 11.49 per 1000 population respectively<sup>5</sup>. Indeed the government of Pakistan is committed to provide doorstep health care services through Lady Health Worker (LHW) program; however, this would only provide primary health care in disadvantage areas. In Pakistan, the private sector plays an important role, i.e., private sector provides almost 80 percent of the outpatient services and public sectors 20%. Regarding health work force the situation is worse at some of the tertiary care hospitals as the turnover is also very high in Pakistan. The permanent migration of health care workers is mainly due to economic and social reasons result in shortage of health workforce which affects Pakistan to achieve Sustainable Development Goals (SDGs).

# • Primary Problems/Challenges and Strategies

Japan is often considered an efficient system in terms of highest life expectancy in the world and relatively low expenditures on health care. One of the other big challenges for Japanese is the growing elderly population as it has the highest life expectancy at birth which requires rising expenditures for elderly population. Another challenge in Japan health care delivery system is that clients seek health care services for minor health problems for example, cold or flu for which even medical care is not necessary; because they are insured with the hospitals for their health care expenditures. In addition, people do not have a regular primary physician so there is no gate keeping in seeking advanced health care, which ultimately leads to higher influx of inpatient and greater number of health care workers.

In Pakistan, inefficient management and ineffective strategic planning has remained a key concern at all levels. In addition, Pakistan is far away in maintaining high quality care services at many of the health care facilities. There are very few public and private hospitals which provide quality care health services. Despite Pakistan has multi-tiered health care system; it has very poor health indicators such as high maternal and infant mortality rate as well as high mortality under five years of age due to lack of strategic planning and ineffective implementation. In addition, Pakistan is facing а double burden also of communicable and non-communicable diseases. Furthermore. Pakistan has developed information and management system however; it is not working effectively due to lack of national human resource policy and budget allocation for health expenditures<sup>6</sup>. Poverty is another big issue in Pakistan, to poor health indicators. The militancy in the northern areas has created several security issues making difficult of health accessibility to underserved areas. In terms of health care system, Pakistan has devolved all the major responsibilities to the federal and the provinces however; there are disparities between federal and provincial in terms of infrastructure, resources, and governance 7 which causes inaccessibility of the health services. Furthermore. another big

challenge for Pakistan is to achieve the required number of health workforce for the country; this problem gets worse with no defined national policy for health workforce, in-service training, and strategies to retain high qualified doctors and nurses within the country.

#### • Strategies to Resolve Problems/Challenges

Pakistan has a number of challenges pertinent to health care system; however, these challenges can be overcome by implementing effective and realistic strategies.

- $\triangleright$ Ministry health of should take responsibility to formulate national health policies by involving all the kev stakeholders in order to maintain sustainability
- Local people should be trained to provide health care at remote areas where the accessibility of health care is poor for the local residents.
- Government should plan some attractive policies for the health workforce in-order to retain them in the country.
- Government should initiate health insurance system for every citizen in-order to give them equitable access to health care.
- Public-private partnership should be encouraged and enhanced to provide better health services and the government should monitor both the sectors.
- Deployment of midwives must be ensured for deliveries at underserved areas to reduce maternal and infant mortality rate.
- Government should strengthen the monitoring and evaluation system in order to ensure quality of health services.
- Ministry of health should make sure that at least all the tertiary level public and private hospitals be accredited by JSI.

#### Conclusion

Health care delivery system plays an essential role in disease prevention, health promotion and treatment of ailments in every country. Each country has different health care model in-order to address the health issues of its population. Pakistan has improved a lot in health care system since its existence; however, it lies behind in a number of public health aspects such as combating with infectious and noncommunicable diseases and achieving SDGs in comparison with Japan and many other countries. SDGs can be achieved by increasing the trained health force and improving the accessibility of the health services.

#### **Conflicts of Interest**

There is no conflict of interest in this paper.

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