

Shaping 21st Century Public Health in Pakistan: An Actionable Agenda for Achieving Universal Health Coverage

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Bismillah irr Rahman irr Rahim

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Dr. Muhammad Ali Chaudhry, Ammara Khan

Abstract

Pakistan's health system has struggled to effectively and efficiently serve the needs of an ever-growing population. Chronic challenges include prioritization, regulation, institutional alignment and governance. They have combined to produce major gaps in service delivery. Structural shifts in Pakistan's demographic and disease profile are indicative of the urgent need to reform and reorient healthcare in the country. The Covid-19 pandemic and its impact on the wider public health ecosystem, the economy, lives, livelihoods and wellbeing of people and communities across the country only reinforces the need for a strong and resilient public health system; one that provides affordable high-quality healthcare and delivers effective crisis management.

In view of Pakistan's international commitments to the Sustainable Development Goals (SDGs), and a continually lagging performance in nutrition, infectious diseases and preventive healthcare, a national focus on Universal Health Coverage (UHC) offers a unique opportunity at the turn of the decade. This paper examines Pakistan's healthcare system and the emerging health requirements and deficiencies. This analysis is followed by an overview of UHC and its relevance as a framework to improve the country's healthcare system. The paper then discusses Pakistan's progress towards UHC and concludes with a transformation roadmap for an improved and effective 21st century healthcare system that can serve Pakistanis.

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1 Pakistan’s Public Health Crisis

This section examines Pakistan’s existing and imminent health crises through a review of demographic and epidemiological trends, and a deconstruction of the current system and factors at the root of public health ineffectiveness. These trends and systemic deficiencies are only being further exacerbated by the impact of the current Covid-19 health emergency.

1.1 The Demographic Shift and its Significance

The current population of Pakistan is over 220 million – making it the fifth most populous country in the world with an annual population growth rate of 2.05% (“United Nations World Population Prospects”, 2019). This soaring population growth is a serious challenge with broad socioeconomic implications: 63% of the population is younger than the age of 30, nearly one-third of the population is living in poverty (with more being pushed below the poverty line due to Covid-19), and the literacy rate hovers at around 60% (World Bank, 2017).

1.1.1 Ageing and decreasing mortality

Life expectancy in Pakistan has been increasing over the years with improving social infrastructure and health awareness. This rise has led to changing age demographics in the country. Current life expectancy is at 67.17 years, which is a 0.23% increase from 2018 and an approximate 10-year increase since 1972. It is also pertinent to mention that 90% of the country’s population is below the age of 54.

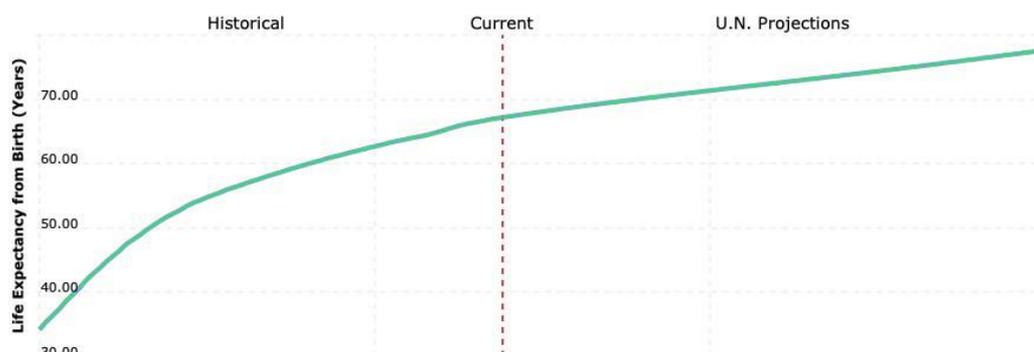


Figure 1: Average Life Expectancy in Pakistan, 1950-2102 (Source: Macrotrends/World Bank)

Pakistan’s key health indicators have seen only slow progress over the years. The infant mortality rate (IMR) is 61 per 1,000 live births – significantly higher than neighbouring countries (double that of India, quadruple of Iran, and still higher than Afghanistan). The maternal mortality ratio (MMR) is 140 per 100,000 live births – at par with India but significantly higher than Iran. While these indicators have gradually decreased over the years, there is room for much more improvement in Pakistan.

	Pakistan	India	Iran	Afghanistan
Infant Mortality Rate per 1,000 live births (UN, 2019)	61	32	13	52
Maternal Mortality Rate per 100,000 live births (WHO, 2020)	140	145	16	638

Table 1: Infant and maternal mortality comparison in selected Asian countries (Source: United Nations, WHO)

By 2050, Pakistan’s GDP per capita is projected to increase to USD 2,283 (USD 1,000 in 2015), with a corresponding population size estimated to be around 345 million, based on the present trend of declining fertility (I. Ul-Haq, 2017). If Pakistan were to achieve the average South Asian fertility rate of 2.4% (currently 3.5%), the estimated population by 2050 would be 276 million. This slower population

growth alone would result in a projected GDP per capita of USD 3,414 in 2050. Based on the above estimates, a Pakistani on average, will have 50% more GDP per capita in 2050 if the population growth is slower over the next three decades. The cost of not being able to reduce the fertility rate will be a GDP loss estimated at USD 2.3 trillion between 2020 and 2050. This is equivalent to a USD 76 billion loss per year and will have massive economic and social implications (I. UI Haq, 2017).

For over a decade, there have been no large-scale population related interventions. Effective efforts to shape policy that drive reductions in fertility and population growth were seen between 1990 and 2006 under the Social Action Programme. Interventions such as the expansion of public sector provision, large scale private sector participation including social marketing innovations, and improving access to women through community-based providers started to diminish after 2006. Public and private interventions stagnated, and resources were depleted with no fresh ideas while the population continued to explode. The current trajectory for the country with a stagnant fertility rate, and the largest ever cohort of youth going into active reproductive age is concerning. Without decisive action, the population explosion will put enormous strain on the country's ability to deliver basic services, including healthcare (I. UI Haq, 2017).

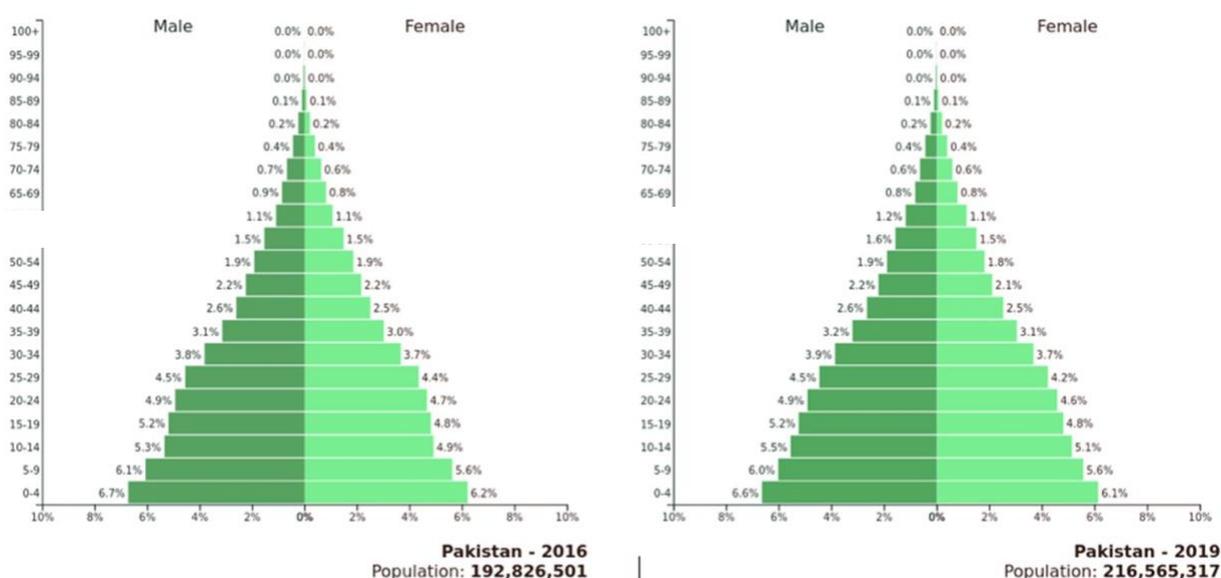


Figure 2: Comparison of Pakistan's age demographic profile (Source: populationpyramid.net)

1.1.2 Emergence of the middle-income cohort and urbanisation

Countries with the highest contribution to global population growth are also likely to have the most rapid increase in their middle-income segment. Following this trend, Pakistan, along with most emerging economies, is experiencing this increase. The middle-income segment is a major contributor to economic growth and resulting urbanisation. 38.8% of Pakistan's total population now resides in urban centres, making it one of the highest urbanisation rates in South Asia. With its growing spending capacity, the middle-income segment is increasingly spending on quality healthcare (Banerjee, A.V & Duflo, 2008). At the current rate of growth in Pakistan, this segment can be projected to represent two-thirds of the population by 2030 – a market potentially larger than USD 1 trillion (Kharas, 2017). This would amount to 160 million people, giving Pakistan the 15th largest middle-income cohort in the world, making quality healthcare a more immediate requirement for this growing segment.

1.2 Changing Disease Trends in Pakistan

Pakistan's disease demographic has witnessed change and is currently facing the double burden of infectious (38%) and lifestyle diseases (49%).

Ranked sixth amongst high-disease burden countries, 40% of the burden of disease in Pakistan is in the form of preventable diseases and it is estimated that over half of all deaths can be attributed to lifestyle diseases (World Health Organization, 2018).

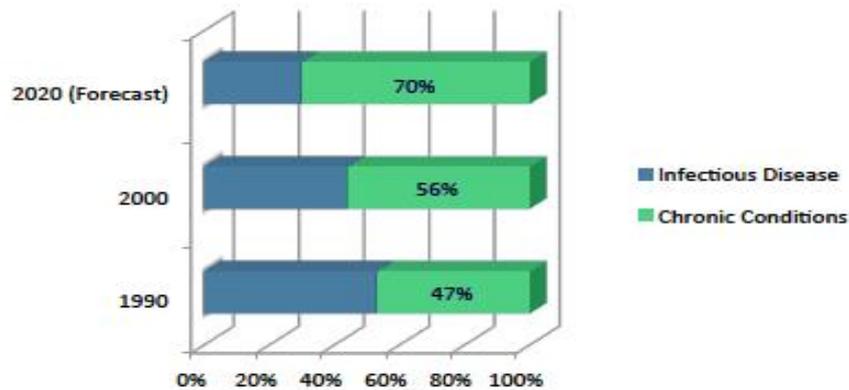


Chart 1: Burden of deaths due to infectious disease (Source: economist.com)

Infectious diseases, maternal health and under-nutrition comprise around half of the national burden of disease. Pakistan is one of two remaining countries where polio is still endemic. It has the fifth highest tuberculosis (TB) burden globally, with hepatitis B and C endemic in the general population and malaria in focal geographical areas (World Health Organization, 2018). The large burden of infectious disease in Pakistan can be linked to the lack of sanitation facilities and unsafe sources of potable water, in addition to several other contributing factors. Governments at the federal and provincial level work closely with private institutions, such as medical research universities, and international partners to support understanding and control of the incidence of infectious diseases.

Traditionally, communicable diseases are thought to be the prevalent disease, however, with better control and treatment availability. The incidence of infectious diseases is decreasing while the incidence of lifestyle diseases is increasing. A significant disease burden among the adult and economically productive age groups can be attributed to lifestyle diseases. Not only is Pakistan among the top ten countries globally for diabetes prevalence, 25% of adults are hypertensive, and 41% of adult males are smokers. One-fourth of the population over the age of 40 is estimated to suffer from cardiovascular and metabolic diseases (World Health Organization, 2016). Such a high incidence of diseases had led to 53% of deaths being recorded in people under the age of 70, and significant health expenditure estimated to be as high as USD 296 million over the last decade (Ahmed, 2017).

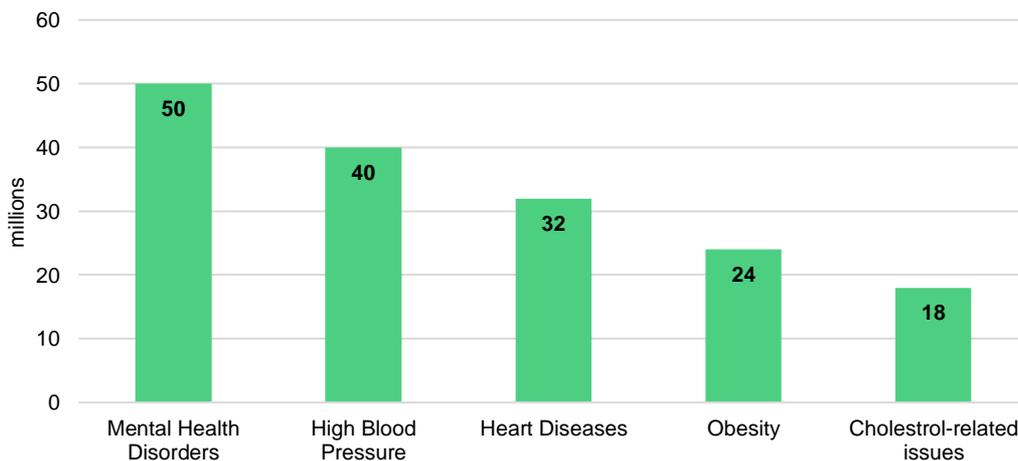


Chart 2: Communicable Diseases in Pakistan
 Note that a single individual may have one or more of these conditions (Ahmed, 2017)

This disease burden is both growing and shifting with inadequate delivery of primary and secondary healthcare, no clear systematic interventions planned, human resource deficiencies in the sector and growing unmet demand for quality care.

1.3 A Dysfunctional Healthcare System Brimming with Potential

Pakistan ranks 154th out of 195 countries in terms of the quality and accessibility of its healthcare, which is far behind India (145th), China (48th), Sri Lanka (71st), Bangladesh (133rd) and Bhutan (134th) (The Frontier Post, 2018).

1.3.1 Healthcare delivery: Fragmented and sub-optimal

Under the 18th Constitutional Amendment, health is a devolved subject and hence, primarily the responsibility of provincial governments. This structure offers the opportunity for improved health planning, spending and applying transformations in the health system within a focused geography and a defined administrative structure (Zaidi et al., 2019). The Secretary of Health at the provincial level is the custodian of health policy, exercises control over financing and investment, teaching hospitals and other special institutions, whereas the healthcare is delivered and administratively managed at the district and sub-district level. Despite provincial autonomy and resources, progress on wholesale health reforms and structural transformations has been impeded due to three main reasons (Zaidi et al., 2019):

- Weak coordination and capacity at the national level
- Insufficient stewardship and system capacity at the provincial level
- Healthcare delivery becoming more vulnerable to political interference at a local level

Fragmentation through systemic misalignment of incentives and lack of coordination within and among institutions has led to inefficiencies – Impacting quality, cost and outcomes, and reinforcing the need for improvements in integrated care. It has also perpetuated suboptimal care, implying missed opportunities for timely interventions, delays in diagnosis, treatment and/or referral, and inadequate or inappropriate patient management (Quirke, Coombs, McEldowney, 2011). Sector corruption, concentration of infrastructure in urban centres, imbalances in the workforce, and complex governance are all contributing factors to the suboptimal outcomes. Additionally, ghost facilities (Tunio, 2015) are found across the country as high-quality qualified and trained human capital e.g. physicians and surgeons seek more lucrative career opportunities abroad. There are also cases of ghost physicians who are employed by provincial health facilities and remain absent from duty despite collecting salaries (Mansoor, 2013). Thousands of patients wait in the hallways of public healthcare facilities and recurring shortages of medication continue to worsen the situation.

1.3.2 Constitution of the healthcare delivery system

Pakistan has a mixed health system that includes public and private actors, along with civil society, philanthropic contributors, and donor agencies. The delivery of healthcare is mainly concentrated in larger cities, despite 60% of the population located in rural areas. The public sector delivers healthcare through a three-tiered delivery system and a range of public health interventions. Despite the significant role played by the private sector, the government is still the largest institutional provider of health infrastructure in the country. Basic Health Units (BHUs) and Rural Health Centres (RHCs) form the core of the primary healthcare structure. Secondary care – including first and second referral facilities providing acute, ambulatory and inpatient care – is provided through Tehsil Headquarter Hospitals (THQs) and District Headquarter Hospitals (DHQs), which are supported by tertiary care from teaching hospitals.

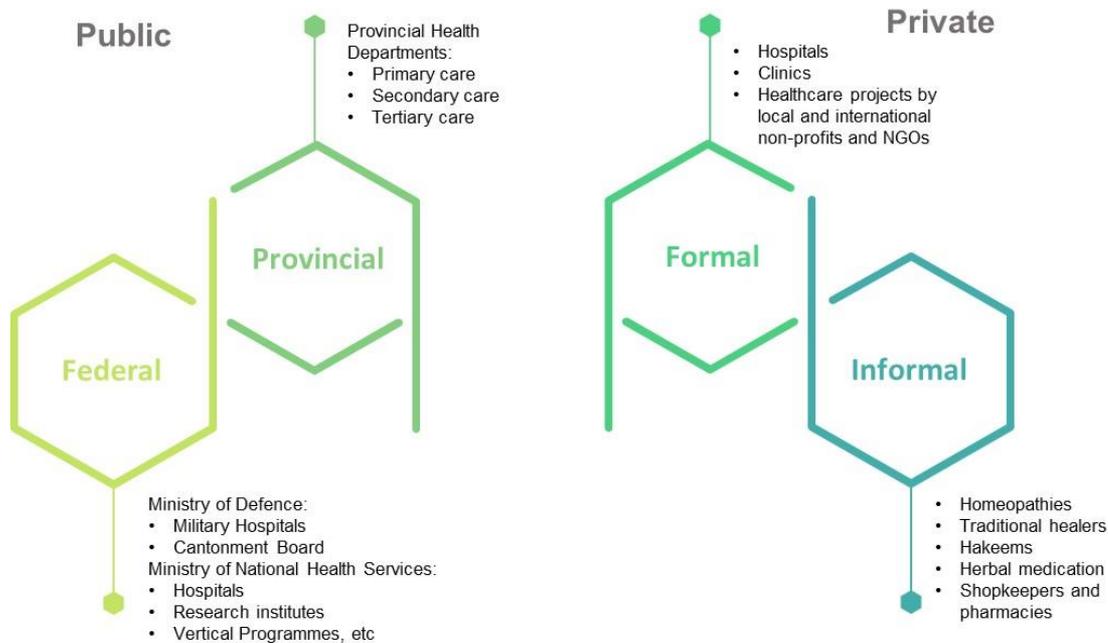


Figure 3: Pakistan's health system map (Source: Kumar, S. & Bano, S – 2017)

Maternal and Child Health Centres (MCHCs) are also a part of the integrated health system; however, the number of MCHC remains limited. The MCHCs, BHUs and RHCs provide basic obstetric care with community outreach programmes offered through lady health workers.

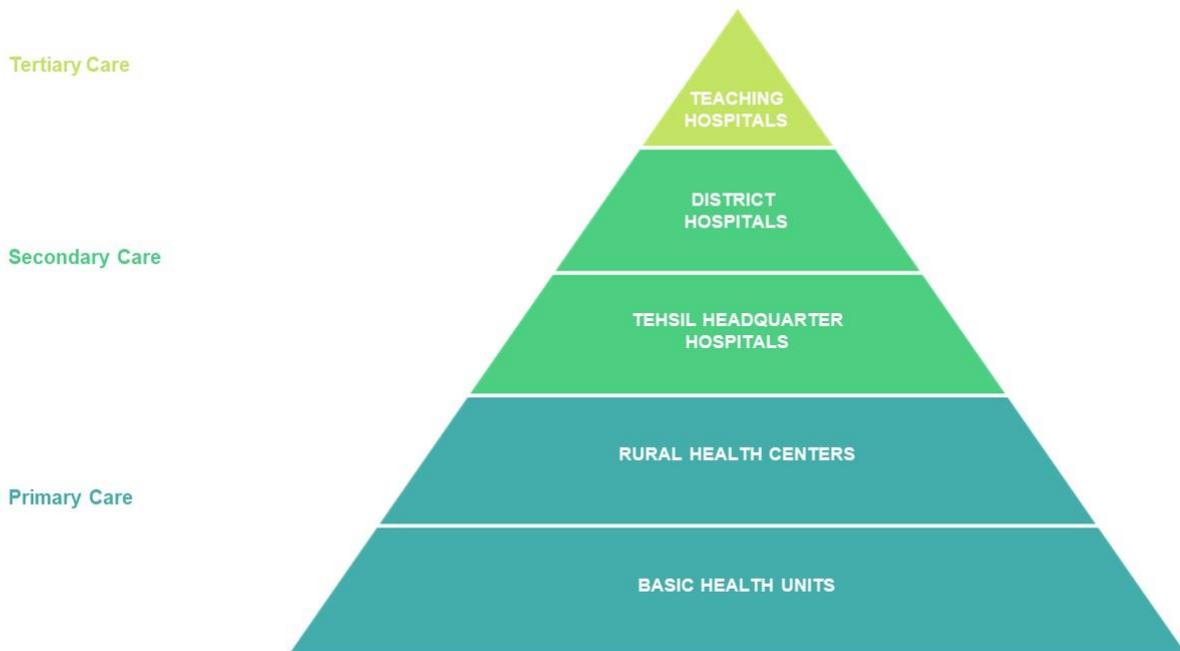


Figure 4: Pakistan's healthcare tiers

The national health infrastructure comprises of 1,279 hospitals, 5,527 Basic Health Units, 686 Rural Health Centres, 5,671 Dispensaries, 747 Maternal and Child Health Centres and 441 Tuberculosis centres, while the total availability of beds in these health facilities is estimated at 145,124 (World Health Organization, 2018). In addition, more than 95,000 Lady Health Workers are providing primary healthcare and outreach services to communities through health houses (World Health Organization, 2018).



Chart 3: Pakistan health facilities by type (Source: Pakistan Bureau of Statistics)

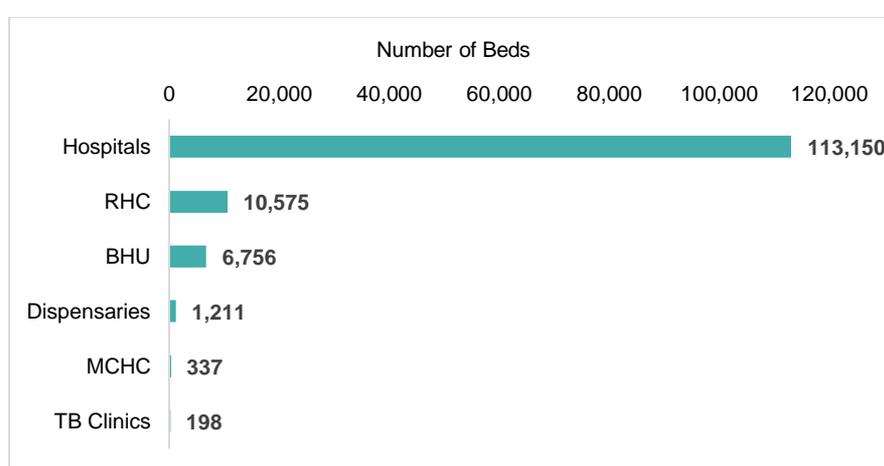


Chart 4: Pakistan health facilities capacity (Source: Pakistan Bureau of Statistics)

Healthcare delivery is systematised through four modes: preventive, promotive, curative, and rehabilitative services.

Preventive	Promotive	Curative	Rehabilitative
Measures taken for disease prevention. The goal is to help people stay healthy.	Enables people to increase control over their own health. It covers a wide range of social and environmental interventions that are designed to benefit and protect individual health and quality of life by addressing and preventing the root causes of ill health, not just focusing on treatment and cure.	Practices that treat patients with the intent of curing them, not just reducing their pain or stress.	Special healthcare services that help a person regain physical, mental, and/or cognitive abilities that have been lost or impaired as a result of disease, injury, or treatment.

Table 2: Classification of healthcare modalities

Curative and rehabilitative services are being provided mainly at the secondary and tertiary care facilities. Preventive and promotive services, on the other hand, are mainly provided through various

national programmes and through the outreach of community health workers at primary healthcare facilities. It is pertinent to note that the dominant trend in this delivery system thus far has been to support curative measures rather than a prevention-focused system.

Pressures on public health institutions from a rapidly growing population have allowed the private sector to service the gap created by an ever-increasing demand and limited public health facilities. Currently there is a preference for private healthcare across the country, with 70% of the population paying out-of-pocket for treatment (Khalid, M. & Sattar (2016)). Despite the fact that there has been significant investment in private healthcare delivery, the private healthcare system lacks a structured and coherent approach that integrates the provision of primary, secondary and tertiary care delivery in an effective manner. The private sector comprises 35% of all physicians, 17% of hospital beds in the country and is the most popular source for general consultations at 71% of the total country volume. Primary healthcare is mostly provided by general practitioners with individual practices, maternity homes, polyclinics and laboratories.

1.3.3 Regulation

After devolution, the Ministry of Health was re-constituted as the Ministry of National Health Services, Regulations and Coordination (MoNHSRC). The MoNHSRC has the overall umbrella responsibility of a wide range of functions at the federal level. These include providing a unified vision for health, donor management, international agreements, regulations, global health security, regulation of drugs, technology and human workforce, research, and inter-provincial coordination on planning, information and surveillance (World Health Organization, 2016). Primary responsibility for governance and service delivery rests with the respective provincial departments, agencies and offices, which are responsible for health, sector policy, legislation, programming, implementation, budgeting and monitoring. Provinces have varying capacities at the provincial and sub-provincial level, which in turn affects the governance, performance and accountability of the management and workforce. In particular, low capacity results in a lack of impetus and agency to conceive and execute reforms. Capacity constraints are further aggravated by frequent bureaucratic shuffles resulting in high turnover of senior leadership (World Health Organization, 2016).

Although Health Regulatory Commissions have been established to regulate health services across the public and private sector, the systems are weak, and their work is mainly centred on licensing activity for public health facilities. Medical negligence, unethical practices and daily practicing hours of the clinics go unchecked (Malik, 2013). There is a lack of standardisation with no regulations to categorise various types of facilities and their requirements. Despite the private sector being a dominant provider of care, the regulatory framework is rudimentary in addressing the complexity of being able to manage, standardize and make a mixed system functional. Although the Punjab Healthcare Commission serves as an attempt to build such standards, it is without any effective mandate and remains an advisory body without much in the way of enforcing any rules. This has a particularly negative impact on the private sector, whereby, a properly built infrastructure is treated the same as an informal clinic.

There is also a lack of measurement and reporting of quality of service indicators. Some mechanisms have been put in place by the Ministry of National Health Service, Regulation and Coordination that insufficiently address this critical issue. The notion of quality is extremely subjective, and without standards, reporting on quality of service indicators and linkages to licensing conditions, the disconnect continues to impede effective regulation of, and delivery by private health service providers. The absence of licensure evaluation mechanisms implies there is no federal or provincial system in place to properly assess a facility's readiness before commissioning and starting operations. Coordination among various civil agencies is non-existent, whereas, new facilities are not in line with any local or international standards. As a result, this can lead to potentially harmful effects on patients being cared for in unsafe environments. *(Please refer to Annex I for a full list of all applicable health legislation in Pakistan.)*

1.3.4 Financing: suboptimal with inefficiencies

The financing matrix for healthcare in Pakistan involves a tax-funded public sector system providing free healthcare through government health facilities and a private for-profit sector financed mainly

through out-of-pocket payments. There is also a small but high visibility not-profit healthcare sub-sector that draws and disburses charity contributions across the country. Public spending represents approximately 31.6% of health expenditure, while the remaining is split between 66.7% from private sources and 1.74% from NGO spending and donor funds (World Bank Indicators, 2017). Foreign aid as a percentage of total health sector allocation is at about 2%. NGO and donor funding contributions are coming primarily from self-funded organisations such as HANDS, the Shifa Foundation and Aga Khan Health Services Pakistan, while external sources include USAID and the Department for International Development, UK (Kumar, S. & Bano (2017). Local NGOs have emerged as an expanding third sector, funded by philanthropic contributions and *zakat* from citizens and private companies (World Health Organization, 2016). Several organisations and donor agencies have made significant contributions to improve health outcomes in Pakistan over the last few decades.

The health insurance sector, on the other hand, is small and primarily addresses social security for government and large private sector employees, whereas voluntary health insurance comprises only 0.2% of national health expenditure. Households spend mainly on medicines (67%) (Zaidi and Nishtar, 2011) at both private and public-sector facilities, followed by consultations (23%) mainly in the private sector and transportation to health facilities (10%), which can be formidable in disadvantaged areas.

Since the devolution of health to the provinces, the proportion of government health spending has increased in all provinces and is accompanied by higher policy ownership for health. However, allocations are still inadequate to meet the country’s essential health needs and there is lack of strategic harnessing of other government and non-governmental sources of funding. While it is evident that the total public spending on health in Pakistan has increased in absolute terms year after year, the allocations as a percentage of GDP seems to be fluctuating significantly. Most recently, it peaked at a high of 1.2% in FY 2017-18 before slightly declining to 1.1% in 2018-19 (Pakistan Economic Survey, 2019).

PKR million	Current Expenditure			Development Expenditure			Total		
	2015-16	2016-17	2017-18	2015-16	2016-17	2017-18	2015-16	2016-17	2017-18
<i>Punjab</i>	61,762	70,060	111,026	29,295	31,774	42,149	91,057	101,834	153,175
<i>Sindh</i>	54,091	61,760	85,304	12,413	15,000	15,431	66,504	76,760	100,735
<i>KP</i>	16,701	19,775	26,898	12,782	16,362	15,543	29,483	26,137	42,441
<i>Baluchistan</i>	15,482	17,368	18,307	3,840	3,536	6,013	19,322	20,904	24,320
<i>Federal</i>	12,108	12,379	12,847	25,874	25,324	51,051	37,982	37,703	63,898
Total	160,144	181,342	254,382	84,204	91,996	130,187	244,348	273,338	384,569

Table 3: Pakistan Health Budget Allocations (Source: Annual Budget Statement 2017-18)

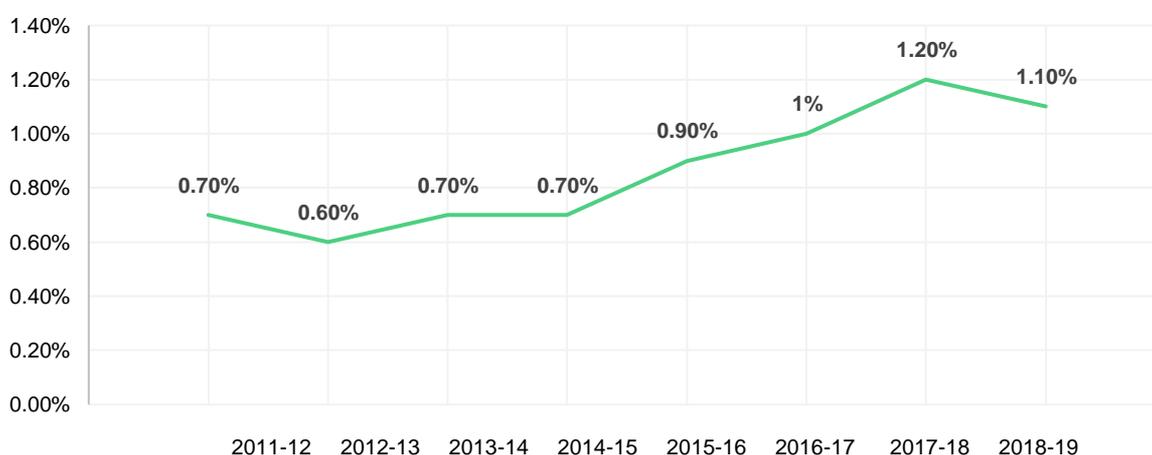


Chart 4: Pakistan public health allocations as a percentage of GDP

As a result, Pakistan currently ranks 183rd in the world for health expenditure (World Health Organization, 2017). Total Health Expenditure (THE) is below 3% of the GDP over seventeen years (2000-2017). This is the lowest in South Asia and adjacent countries – India stands at 3.53%, while Bangladesh is marginally lower at 2.24%. While allocation of funding is one part of the equation, efficiency in spending of allocations is the other equally important part. Spending efficiency of the public sector also requires an overhaul. There are significant overlaps in the services offered by the government and private sector, as well as disproportionate government spending on infrastructure and tertiary care, as opposed to preventive and primary care (World Health Organization, 2016). The table below summarizes some key health expenditure indicators of Pakistan.

Indicator	Results	Sources of Information
Total health expenditure as % of GDP (2017)	2.9%	WHO Global Health Observatory 2017
Total health expenditure per capita (2017)	USD 161	WHO Global Health Observatory 2017
Public health expenditure as % of GDP (2019)	1.1%	Pakistan Economic Survey 2019
Public health expenditure as a % of the total health expenditure (2017)	31.58%	World Bank, 2017
Out of pocket payments as a % of total health expenditure (2017)	65.24%	WHO Global Health Expenditure database

Table 4: Pakistan health expenditure indicators

1.3.5 Workforce

Pakistan's healthcare system is severely understaffed across all categories of the workforce that are essential in providing quality health services to the population. Physicians, nurses, midwives, community health workers, pharmacists are all significantly lower than the World Health Organization (WHO) recommended staffing levels (World Health Organization, 2016). Pakistan has an estimated 1.08 physicians, 0.71 nurses and midwives, and 0.09 community health workers per 1,000 population. With such low levels of staffing, Pakistan is listed as one of 57 countries with a critical health workforce deficiency.

Indicator	Pakistan	WHO Recommendation
Doctor-Patient ratio	1 : 1300	1 : 1000
Doctor-Nurse ratio	1 : 2.7	1 : 4
Pharmacist-Population ratio	0.9 : 100,000	50 : 100,000

Table 5: Pakistan healthcare workforce shortage

There is also a distinct urban–rural human resource gap, particularly for doctors with approximately 14.5 physicians per 10,000 population in urban areas as compared to 3.6 per 10,000 population in rural areas. Another small but significant discrepancy exists in the distribution of nurses and midwives, with a rural concentration of 2.9 midwives compared to 7.6 per 10,000 population in urban areas (World Health Organization, 2016).

Policy emphasis continues to focus on the expansion of medical colleges, which have grown exponentially from 2 in 1947 to 114 in 2019 (Pakistan Medical & Dental Council, n.d). The public sector continues to heavily invest its scarce resources in the development of medical colleges and universities rather than investing in improving the quality and quantity of existing nursing institutions, public health schools and technical training institutions. Additionally, new family physicians mostly opt for private practice in urban areas because the government has not yet established a system to absorb and retain them in the public sector delivery chain (World Health Organization, 2016).

There is also a long-standing issue with staffing capacity at rural frontline health facilities. For the most part, this seems largely due to political patronage, frequent absenteeism and strong adherence to seniority rather than performance-based career development. Provinces have been exploring initiatives to address these issues e.g. increased salaries for remote postings, real-time monitoring of staff attendance, and use of balanced scorecards. However, a coherent human resource strategy that enables long-term staff development, deployment, retention, performance enhancement and capacity building has not been developed so far (World Health Organization, 2016).

1.4 Poor Health Literacy

An adequate level of health literacy is related to overall positive treatment outcomes. Low health literacy often results in late presentation of disease, poor adherence to treatment and little understanding of wellness and disease prevention. This reflects in an overall weak navigation within the healthcare system, which Pakistan continues to struggle with. With an already heavy burden of infectious and lifestyle diseases coupled with poor healthcare infrastructure, improving healthcare literacy could have a major influence on population health and wellness (Subzwari, 2017).

Since health literacy evidence is primarily derived from the context of developed countries', the validity and adaptability of reforms and intervention strategies for developing countries needs more investigation. There has been limited research examining the impact of different interventions to improving health literacy, especially in specific populations. Research needs to extensively frame the economic consequences of limited health literacy on health systems and the value-for-money quotient of interventions designed to improve it. Additionally, the effectiveness of media, literacy and education in addressing the health and language barriers must be gauged so that medical instructions, prescriptions and drug labels can be better understood (Malik, 2017).

Using basic measures like simplified language and cultural context can optimize health messaging and improve their comprehension. At a more sophisticated level, behavioural insights can be incorporated to make messaging more audience-oriented. A cross-sectional study conducted in Karachi, reported that a majority of people fail to understand various medical terminologies related to dosage on their prescriptions, which shows language as a barrier to effective use of medication (Malik, 2017).

2 A Framework for Transforming Healthcare

This section outlines the conceptual foundation for the analysis presented in this paper to understand the opportunities that may be available with a national commitment to and focus on achieving Universal Health Coverage (UHC).

2.1 Introducing Universal Health Coverage (UHC)

Health systems are organisations of institutions, people and resources whose primary intent is to promote, restore or maintain health. They operate under a formal structure set out by laws and regulations and focus on a defined population. The scope, management, finance and content that enable health systems to operate are also subject to regulations (World Health Organization, n.d). These systems have several key objectives, the most fundamental of which is to improve the health of the population. While focusing on quality of health, they strive to be responsive to the population's needs and protect against the financial risks that individuals face when accessing health services (World Health Organization, 2007). An effective health system is characterised by maximisation of health outcomes through equitable access to affordable and high-quality healthcare – including treatment and curative services, health promotion, prevention, and rehabilitation services to the entire population (Jamison et al., 2017).

UHC has emerged as a movement in response to a growing recognition of the challenges in meeting these objectives around the world. Deficiencies and gaps in access, quality, efficiency and equity with high levels of financial risk have been documented extensively in low and middle-income countries (LMIC) as well as high-income countries (HIC) (Jamison et al., 2017). The importance of universal health is signified by its status as a core tenet of the United Nations (UN) 2030 Agenda. Goal 3 of Sustainable Development Goals (SDG), adopted by all 193 UN Nation Member States, aspires to ensure healthy lives and promote well-being for all at all ages with Target 3.8 specifically focusing on achievement of UHC. As an increasingly important priority for global health and sustainable development, understanding of the target is central to progress and discourse supporting universal health. For health coverage to be classified as universal, it should be able to achieve the following:

- Improving access to health services (particularly for disadvantaged populations)
- Improving the health of the individuals covered
- Providing financial risk protection

The core definition above highlights three fundamental and interrelated indicators that need to be understood, contextualised and tackled through an understanding of economic realities that affect health coverage (Jamison et al., 2017):

- Proportion of population covered
- Proportion of expenditures prepaid – the extent of financial protection from the costs of health services
- Proportion of health services included – the range of services made available

2.2 Making Health Systems Work

The UHC movement prompts a renewed focus on the need to take a systems approach to design and implement policies and frameworks that will enable achievement of healthcare objectives. Primary care, with an emphasis on disease prevention and health promotion should be the foundation of a strong health system (Ghebreyesus, 2019). At a system level, health systems comprise of the following core components: financing, service delivery structures, workforce, facilities, communication networks, technologies, information systems, quality assurance mechanisms, governance and legislation. These components require critical interconnections that are enabled by good governance, robust systems of procurement, supply chain for medicines, health technologies, and accurate and integrated health information systems for improved service delivery. Health services organised around comprehensive needs and expectations of communities will help empower them to take a more active role in their health management and health system (OECD, 2016).

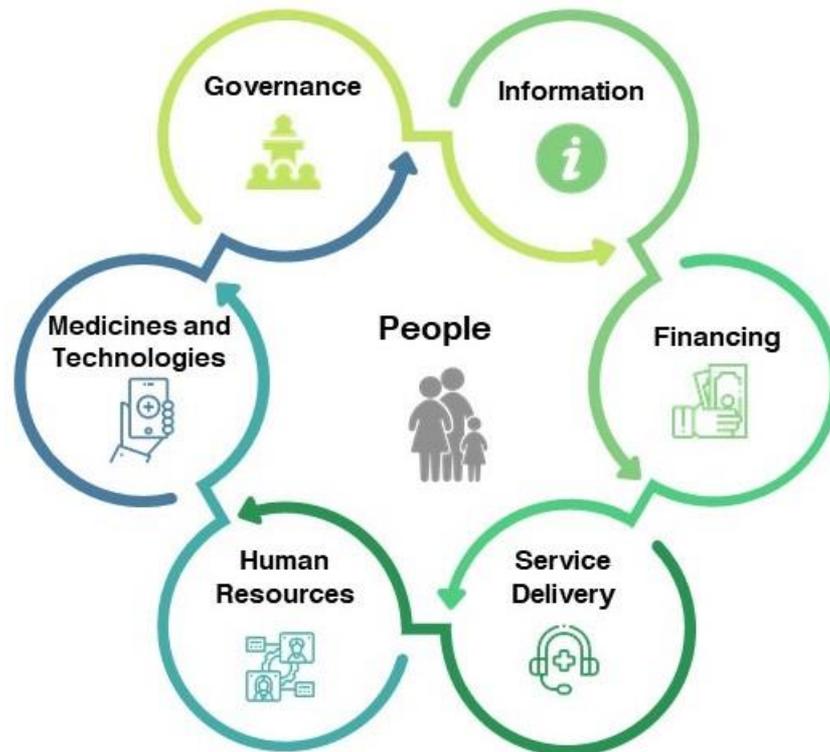


Figure 5: Health system building blocks (World Health Organization, 2009)

Strengthening of health systems to deliver on the objectives that support the achievement of UHC, require a wide array of support through reforms and interventions. In particular, multi-stakeholder buy-in with a dedicated focus on broad-based ownership and commitment from political leaders is essential for making robust systems. In order to leverage system-level support, institutional capacity to expand services must be strengthened and augmented to be able to ensure a responsive health system. Collaboration and coordination across public sector entities responsible for finance, economy, health, education, income, social protection, environment etc. along with sustained engagement of the private sector with support from civil society is another foundational factor that can help maximise the impact of UHC (Sturchio, J.L, Kickbusch, I., L., & Galambos, 2019).

Improving both health service coverage and health outcomes also depends on the availability, accessibility and capacity of the health workforce to deliver quality and integrated care. The most efficient and cost-effective way to ensure access to improved essential healthcare, is through investments in the workforce delivering primary healthcare (World Health Organization, 2019). Supply and capacity gaps of these workers are concentrated in low and lower-middle-income countries with demand projections estimating an additional requirement of 40 million health sector jobs worldwide by 2030 (OECD, 2016). Another critical factor in ensuring an effective and functional health system is the financing structure, which is key to spreading the financial risks of illnesses across a population (World Health Organization, 2019). The system will need to be financed sufficiently and, hence, requires a long-term commitment of resources.

In addition to financing, UHC emphasises service coverage – and with equal importance – how these services are managed and delivered. Service delivery needs to fundamentally shift so that services are integrated and focused on the requirements of people and communities. This means reorienting health services to ensure that care is provided in the most appropriate setting, with the right coordination between inpatient and outpatient care. The current Covid-19 pandemic only amplifies the need for UHC with the multiple effects the disease has on lives and livelihoods, on the well-being of individuals and communities, and on health systems and economies. It has brought into sharp focus the interconnectedness of UHC and a country's capacity to effectively address health emergencies. Countries with weak and underfunded health systems, and inadequately protected health workers are struggling to cope – with the most vulnerable communities being hit hardest.

2.3 Understanding UHC Priorities

Healthcare priorities will differ across countries and need to be contextualized to the specific health needs and constraints as well as respective social, political and economic circumstances – particularly in the cases of LMICs. For example, many OECD countries reached universal population coverage prior to 1960, while population coverage has rapidly expanded in several LMICs since 2000 (OECD, 2016). Reforms, models and interventions will have to be informed by positive discrimination to ensure disparities are consciously implicated (Fusheini, A., & Eyles, 2016), as well as by data that feeds relevant and practical insights to policymakers. Sharp contrasts in approach and experience have been seen in different countries suggesting that many different paths can be followed to successful reform (World Health Organization, 2019).

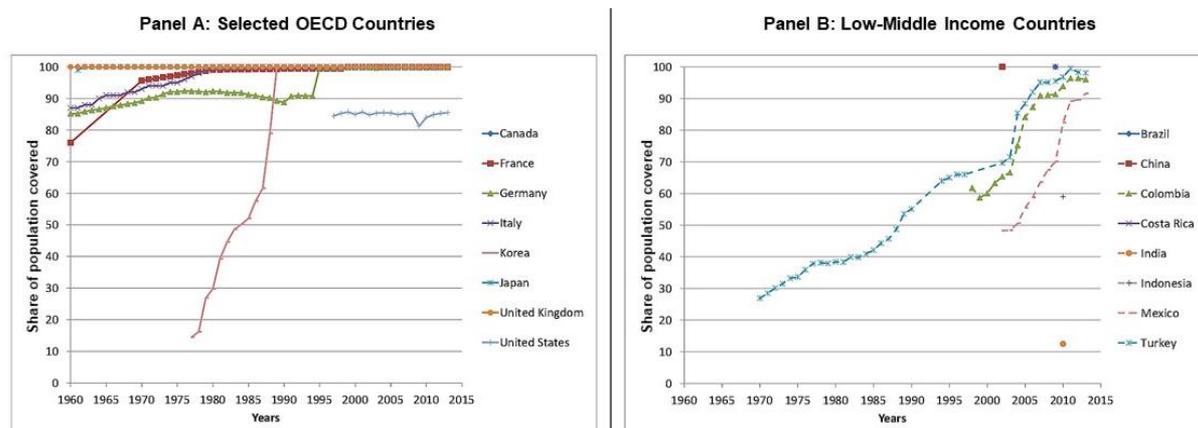


Figure 6: Health Coverage Statistics (Source: OECD)

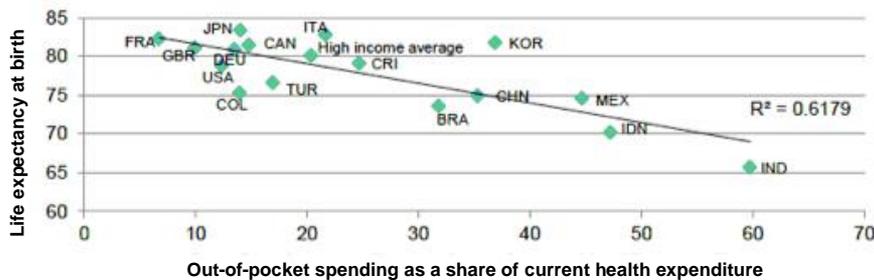
The World Health Organization (WHO), together with the World Bank, has developed a framework to track the progress of UHC. The indicators serve as key measurements to track progress in essential services related to reproductive, maternal, new-born and child health, infectious disease, lifestyle disease, service capacity and access. They also reflect the three fundamental components of UHC by measuring subsets of SDG 3.8. Analysis of OECD data for the period 1990 to 2013 points towards important findings that help adapt health systems to achieving UHC. A summary of these findings is presented below:

1. Increased health spending contributed to about 1 year of observed life expectancy gains, education added 1.19 years, higher incomes contributed 0.81 years, and behavioural aspects such as reduced smoking contributed a further gain of 0.55 years, while reduced alcohol consumption added 0.08 years (OECD, 2016).
2. A clear positive correlation exists between life expectancy at birth and UHC indicators (OECD, 2016):
 - a. An increase in healthcare expenditure has significantly contributed to life expectancy gains over the past few decades. However, there are wider determinants of health that are both important and play critical roles in extending life expectancy. In addition to expenditure, income and education in LMICs are also key contributors (OECD, 2016).
 - b. A positive relationship can be observed between the number of medical health professionals per capita, the health spending per capita and life expectancy. On the other hand, higher out-of-pocket payments were seen to have a clear negative correlation with longer life expectancies suggesting that financial risk protection is associated with health outcomes (Panel B) (OECD, 2016).

Reproductive, maternal, new-born and child health	Infectious Disease	Lifestyle Disease	Service Capacity and Access
<p>Family planning Percentage of women of reproductive age (15–49 years) who are married or in-union who have their need for family planning satisfied with modern methods</p> <p>Pregnancy and delivery care Percentage of women aged 15–49 years with a live birth in a given time period who received antenatal care four or more times</p> <p>Child immunisation Percentage of infants receiving three doses of diphtheriatetanus-pertussis-containing vaccine</p> <p>Child treatment Percentage of children under 5 years of age with suspected pneumonia in the two weeks preceding the survey taken to an appropriate health facility or provider</p>	<p>Tuberculosis Percentage of incident TB cases that are detected and successfully treated</p> <p>HIV/AIDS Percentage of people living with HIV currently receiving antiretroviral therapy</p> <p>Water and sanitation Percentage of households using at least basic sanitation facilities</p> <p>Malaria Percentage of population in malaria-endemic areas who slept under an insecticide-treated net the previous night (only for countries with high malaria burden)</p>	<p>Cardiovascular Disease and Hypertension Age-standardised prevalence of non-raised blood pressure (systolic blood pressure)</p> <p>Diabetes Age-standardised mean fasting plasma glucose (mmol/L) for adults aged 18 years and older</p> <p>Tobacco Age-standardised prevalence of adults ≥ 15 years not smoking tobacco in the past 30 days</p>	<p>Hospital access Hospital beds per capita, relative to a maximum threshold of 18 per 10,000 population</p> <p>Health workforce Health professionals (physicians, psychiatrists and surgeons) per capita, relative to maximum thresholds for each cadre</p> <p>Health security International Health Regulations (IHR) core capacity index, which is the average percentage of attributes of 13 core capacities that have been attained</p>

Table 6: UHC Indicators (World Health Organization, 2019)

Panel B: Life expectancy at birth is negatively associated with out-of-pocket spending as a share of current health expenditure



Panel D: Life expectancy at birth is positively associated with health spending per capita

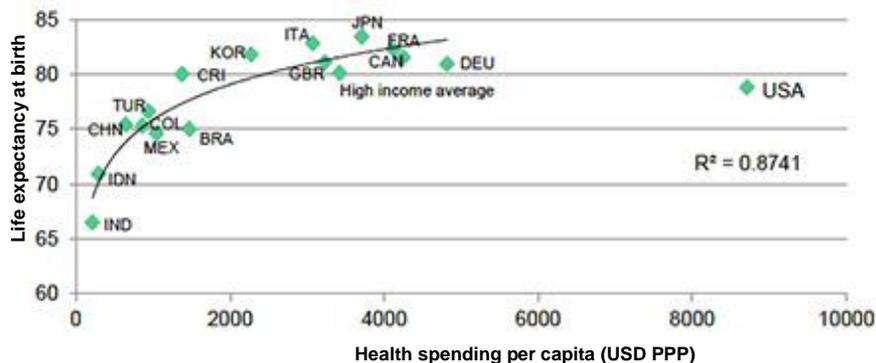


Figure 7: Health Expenditure and Life Expectancy Analysis (Source: OECD)

2.4 Global Progress

Following the commitments agreed to at the United Nations Sustainable Development Summit in 2015, which included attaining UHC by 2030, approximately 75 countries have enacted UHC legislation. Since then, many countries – including Kenya, India, Indonesia and South Africa – have developed policy frameworks and committed new resources to expanding health services. Additionally, all WHO Eastern Mediterranean region countries, including Pakistan, have signed the 2018 Salah Declaration signalling their firm commitments to achieving UHC and to boost investment in institutions for improving policies and implementation (World Health Organization, 2019).

According to the World Health Organizations' UHC Service Coverage Index (SCI), for the official measure for SDG indicator 3.8.1 – coverage of essential health services – global average of 45 out of 100 in 2000 had increased to 66 by 2017 with all regions and income groups recording gains (World Health Organization, 2019). Progress was greatest in low-income countries, mainly driven by interventions for infectious diseases, while middle-income countries accounted for the largest population lacking coverage of essential health services.

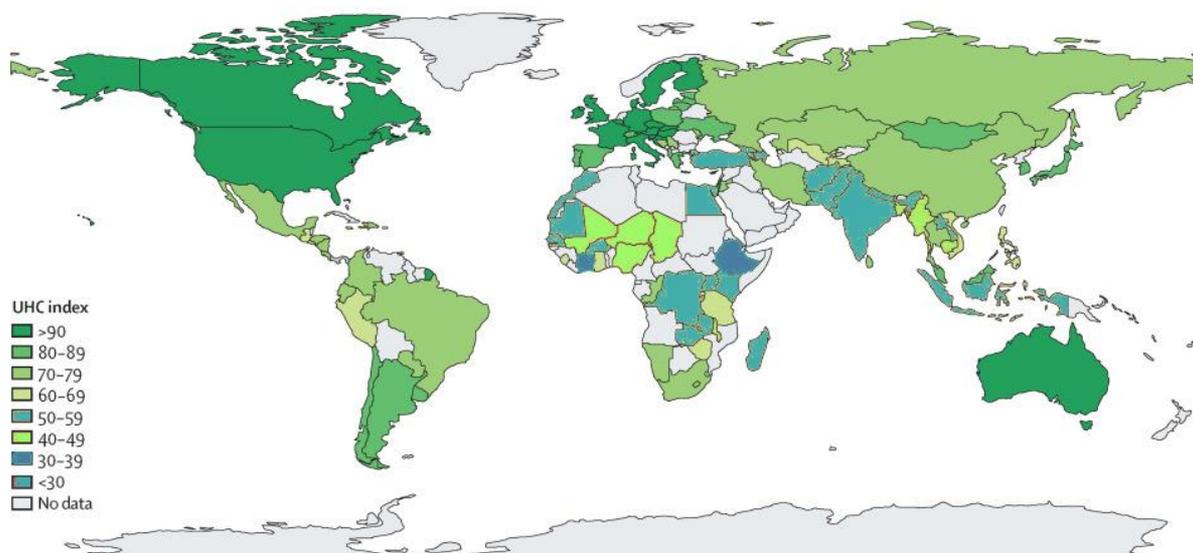


Figure 8: Status of UHC measured through UHC Index (Source: WHO)

For most countries that had available data, positive trends in UHC achievement can be seen in recent years. Significant variation in the achievement remains, though much can be explained by differences in gross domestic product (GDP). No homogeneity can be seen in income groups in UHC achievement. Importantly, a positive association is observed between improved UHC indicators and proportion of the health budget that is channelled through government and social health insurance schemes. This relationship helps establish the potential for accelerating progress through carefully planned and meticulously implemented policies and decisions by health decision-makers (Wagstaff, A. & Neelsen, 2019).

2.5 UHC as a Framework for Pakistan

Anchoring Pakistan's public health transformation around UHC offers a solid framework to strengthen fundamentals and shape a strong and resilient health system for Pakistan. The framework, as discussed above, through its components and sub-components can provide pivotal impact in three key areas which in turn can magnify spill overs across the health system:

1. Improved health outcomes

The dual incidence of diseases in Pakistan requires attention at two main layers: providing adequate basic coverage and access to quality healthcare for all, and a structured focus on prevention to

reduce the pressure on the health system that can cater equitably and efficiently to all segments of the population. The focus on universality and expanding coverage across the board will help reduce pressure on the health system through better targeting and alignment of needs across different population groups, thereby improving the impact of already constrained allocations on health outcomes.

2. Reduction in social inequalities

UHC has shown to reduce social inequalities by helping to improve the accessibility, affordability & quality provision of healthcare. UHC introduces a strong primary healthcare foundation and impact studies of UHC development in LMICs and MICs reflect positive correlations with changed patterns of health service use and a reduction of uninsured populations. For example, Thailand introduced a UHC framework in 2011 and within 5 years the country's uninsured population decreased from 42% to 7% in urban areas and from 24.9% to 2.7% in rural areas (Health Place, 2010). It also reduced the financial burden of healthcare amongst the poor populations. By increasing use of primary care facilities, medical payments are more manageable and catastrophic expenditure linked to impoverishment is diminished (Vasoontara Y et al., 2010).

3. Support to the health economy

Central to a new health economy is the relationship between health, health employment and economic growth. The positive correlation between good or improved health and economic growth is now better understood (World Health Organization, 2001). Improved population health has economic effects that can be seen at both individual and aggregate levels. Income levels are higher because of its positive impact on education, productivity, investment, resource availability and demographics (Jamison, Yamey, Beyeler & Wadge, 2016). Due attention to healthcare to achieve universality will result in improve staffing levels thereby new jobs, ancillary activities that support the sector, increased demand across value chain components and room for innovation and growth. There are few sectors that can sustain this level of a steady growth opportunity (John Hopkins University Press, n.d) and health presents this opportunity for Pakistan.

3 Pakistan's Universal Healthcare Equation

This section summarises the healthcare commitments made against the backdrop of the country's health crises and provides an assessment of Pakistan's progress towards UHC.

3.1 National Health Vision 2016 – 2025

Pakistan's National Health Vision 2016 – 2025 aims to develop a unified vision for improving healthcare in the country by improving coherence between federal and provincial tiers while ensuring autonomy of provinces. Other objectives include synchronisation and coordination of information and evidence for local and international commitments. This holistic approach is expected to feed into the global SDG planning and implementation mechanisms in partnership with other sectors.

The vision focuses on health systems strengthening and inter-sectoral collaboration while recognizing UHC as a top priority among the country's health objectives. It speaks to transformation – driving toward change, equity, resilience and accountability. Policy direction is provided on efficient use of existing funds, social protection investments such as the Poverty Reduction Strategy and social protection initiatives through the country's Poverty Alleviation and Social Safety Division. In addition, the national vision lays specific emphasis on a range of factors such as public service performance accountability, joint public-private target setting, regulation, human resource development for delivery of rural healthcare, and standardised, quality services beginning with the primary health sector (Shehla , 2016). Before this roadmap, only four health policies had been formulated in the country's history – each one was mainly disease-oriented and focused on the public-sector service delivery without a clear translation into operational planning. Sector-wide planning was initiated for the first time after devolution to the provinces (World Health Organization, 2016).

The vision has been structured around eight thematic pillars to drive improvements across the health sector. A synopsis is presented below:

Pillar	Important Areas for UHC	Key Issues & Analysis
Financing	<p>Increase allocation and fiscal discipline for health sector</p> <p>Advocate spending on healthcare as an 'investment'</p>	<p>Allocation to healthcare remains unchanged.</p> <p>Ineffective positioning of health spending as an investment despite potential to reach USD 30 billion (World Bank Data).</p> <p>Government pro-poor social protection initiatives like <i>Sehat Sahulat</i> and <i>Ehsaas Programme</i> will not be effective without investment in infrastructure/new facilities and ancillary services.</p> <p>Financial coverage for cost-effective services universally will be impeded if value from investment is not prioritized.</p>
Service Delivery	<p>Improve coverage and functionality of primary and promotive health services</p> <p>Synergies with the private sector for:</p> <ul style="list-style-type: none"> - essential service delivery (preventive & curative) - reporting on key indicators - models for outreach to under-privileged groups/areas 	<p>Private sector is a major contributor to the provision of healthcare services in Pakistan.</p> <p>The segment remains severely fragmented across federal and provincial tiers.</p> <p>Lack of alignment with the national health priorities and public sector programming.</p> <p>Disproportionate focus on tertiary care with large hospitals in large cities.</p>

Human Resources	<p>Comprehensive human resource strategy (including nursing and allied workforce)</p> <p>Across the board skill enhancement, improved HR practices and performance management</p>	<p>Understaffing across the health delivery chain particularly in rural areas.</p> <p>Formal structures to attract and retain qualified staff need to be developed/improved.</p> <p>Reorienting health workforce to focus on preventive and promotive.</p>
Information Systems & Research	<p>Establish coherence across fragmented and disjointed health information systems</p> <p>Focus on early warning through integrated disease surveillance</p> <p>Strengthening evidence-based policymaking</p>	<p>Expand health data to include public and private service provision.</p> <p>Strong central consolidation from provincial DHIS and other vertical based systems to create a national system.</p> <p>Expand the evidence pool to focus on research in addition to data.</p> <p>Re-purpose data and research to develop a robust decision support system for healthcare.</p>
Governance	<p>Improve leadership, structures and capacity to regulate</p> <p>Focus on performance management at all levels</p> <p>Engagement of private sector and developing of models to improve outcomes</p>	<p>Limited capacity to regulate healthcare, particularly private sector – medical practice, pharmaceuticals and diagnostics.</p> <p>Political patronage and influence should be limited through structural reform.</p> <p>Coordination between federal and provincial tiers to upgrade sector planning and delivery.</p>
Essential Medicines & Technology	<p>Regulations and implementation mechanisms for ensuring quality metrics</p> <p>Improve capacity for monitoring standards</p>	<p>Establishment of Drug Regulatory Authority of Pakistan (DRAP) is a major development.</p> <p>Access to quality and affordable essential medicines is critical for improving health – expenditure on medicines is a major source of out-of-pocket spending.</p> <p>Uniform and universal enforcement is key to establishing trust in the system.</p>
Cross-sector Linkages	<p>Focus on synergizing cross-sectoral efforts that impact health</p> <p>Work across departments to establish a common vision and framework</p> <p>Focus on SDG commitments in a holistic manner with a strategic communications plan</p>	<p>A range of socio-economic factors directly and indirectly affect health outcomes e.g. literacy, economic conditions, urbanization, environment etc. and their interplay is important to map and address.</p> <p>Some of these factors fall beyond the direct mandate of health authorities and hence cross-sectoral/functional coordination is important.</p> <p>A shift to preventive and promotive health along with focus on primary services will require a multi-pronged approach.</p>
Global Responsibilities	<p>Mainstreaming SDG agenda across health strategy and planning</p>	<p>SDGs require more focus in terms of reforms, interventions and service delivery mechanisms as time lapses.</p>

	Focus on improving compliance with international health obligations	<p>Focus on sector transformation, rather than reporting, should be a priority, to be able to meet international obligations.</p> <p>Capacity enhancement at all levels is required to effectively monitor and implement obligations and commitments.</p> <p>Coherence and synergy across policies and health sub-verticals will be required to tackle the chronic challenges and make healthcare universal and sustainable.</p>
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Table 7: An analysis of the National Health Vision 2016 – 25

3.1.1 Provincial Health Strategies

Before devolution to provinces, health sector planning had focused on projects that were shaped by government, donor-funded or vertical programmes. After the devolution, provinces faced a vacuum of policy and planning required to fulfil their new functions (Zaidi et al., 2018). Since then, each province has come up with a province-specific eight to ten year Health Strategy, the development of which were assisted by bilateral and multi-lateral development partners (Zaidi et al., 2018). Legislations on health reforms have been focused on areas like public-private partnerships (PPPs), regulation and autonomy of teaching hospitals.

Province	Health Sector Document
Sindh	Sindh Healthcare Sector Strategy 2012-2020
Balochistan	Balochistan Health Sector Strategy 2013 - 2018
Khyber Pakhtunkhwa	Khyber Pakhtunkhwa Health Commission Act 2015
Punjab	Punjab Health Sector Strategy 2019-2028

Table 8: Summary of Provincial Health Sector Strategies or Regulations

Restructuring of provincial health departments and other reforms and interventions has also helped facilitate health stewardship. Some provinces have established policy and/or reforms units, whereas in Punjab, the health ministry has created a new department for primary and secondary care in order to protect resourcing for primary care (Zaidi et al., 2018). As discussed earlier, the disproportionate focus on tertiary care and resorting to large hospitals results in undue pressure on public as well private service providers, increases out-of-pocket costs for the population and increase vulnerability to health shocks thereby making achievement of UHC a distant goal.

Case Study: Punjab

The Government of Punjab took forward the intent of the newly elected political leadership to reform and restructure the Punjab Health Sector towards better performance and pursued the development of the 10-year Punjab Health Sector Strategy 2019-28. The strategic roadmap, being a basic requirement to allocate financial resources, has been developed with rigour. This strategy is a sequel to, and is in consonance with the achievements and gaps from the previous Health Sector Strategy 2012-20 – made once health became a provincial mandate after the passing of the 18th Amendment and bifurcation of the Punjab health department. The Government of Punjab underwent extensive consultations, deliberations from national high-profile experts and an in-house consultative process to achieve the required consensus in fully owning this Health Sector Strategy under the leadership of the Punjab Health Minister, with Policy & Strategic Unit as the Secretariat.

The situational analysis conducted prior to the development of the Health Sector Strategy shows that Punjab has several shortages in its basic health indicators pertaining to reproductive, maternal, newborn, child health, and nutrition (RMNCH&N), and communicable and non-communicable profiles. These gaps have been dealt with a strategy to efficiently tackle these issues. In addition to these, the defined priorities of the new political leadership in the health sector include patient safety and quality

of care, infection control, hospital waste management, environmental health, health financing and public-private partnership. These priorities are underpinned by three paradigms: biomedical, socio-environmental and lifestyle & behavioural contexts. These paradigms cannot be achieved unless the role of other government agencies and departments, civil society organisations, private sector and community groups is realised through large-scale mobilisation.

Additionally, the mechanisms towards achieving desired objectives will require major interventions in governance and accountability, human resource capacity building, shortages in specific cadres, introduction of new concepts and reforming the Health Department towards this direction. The emphasis on an across-the-government approach has been informed by the situational analysis. Punjab undertook major steps in the past, but outcomes were compromised because of a silo-based approach and hence were counterproductive in instituting a systems-based approach.

(Please see Appendix I to see the outcomes and objectives that emerged through this consultative process)

3.2 Progress: Where we are

Countries with similar socioeconomic profiles often have a wide variation not only in their health outcomes, but also in their service coverage rates and degree of financial protection. As a result, researchers now compare the performance of national health systems in working towards UHC goals. Most country health systems have some degree of financial and administrative decentralisation, and therefore decisions on the design and implementation of UHC programmes are often made at both the national and the sub-national levels. Pakistan's UHC Benefits Package is being developed collaboratively by the Ministry of National Health Services, Regulation and Coordination, provincial and district health departments, academia, private sector, civil society organisations and international development partners with technical support from the WHO.

Since UHC can be considered a product of pooled public funding to finance improvements in health service coverage, the ability of individual systems to extend health coverage and access was measured against pooled funding levels (Faraz, 2019). Recent research in Pakistan examined the efficiency of divisions in moving toward UHC, as district-level data on financial protection outputs is not available. The performance of all 28 divisions across four provinces in Pakistan was assessed and compared against a set of UHC performance indicators relative to health systems inputs. Given the importance of pooled public spending in the transition of low and middle-income countries towards UHC and the limited role of pooled private spending in financing health in Pakistan, pooled public spending was taken as an input and UHC tracer indicators were taken as the outputs. Data from the Pakistan National Accounts 2011–12 and the Pakistan Social Living and Measurement Survey 2012–13 was used to measure per capita pooled public health spending in the divisions against a set of UHC indicators – health service coverage and financial protection (Faraz, 2019). The results showed a large variation in performance across divisions for selected UHC outputs. Meanwhile, access to healthcare, the responsiveness of health systems, and patients' satisfaction correlated with efficiency scores.

3.2.1 UHC Status & Insights

Research findings reflected high levels of variation in per capita public health expenditure, ranging from USD 1.37 to USD 37.88 across divisions. Additionally, huge variations were observed, for the most part, in coverage for all other healthcare services. Further inter-provincial and intra-provincial investigations are required to understand the determinants of the inequitable public spending and see if the spending variation is a result of genuine differential needs of the populations or inequities in the distribution of public resources (Faraz, 2019).

Islamabad had the highest level of spending at USD 37.88 per capita, while Karachi and Mirpur Khas from the province of Sindh, Rawalpindi from the province of Punjab, and Mardan from the province of Khyber Pakhtunkhwa spent less than USD 10 per capita (Faraz, 2019). Divisions from Sindh were found to be relatively better performing – their scores ranged from 91.42% to 100% UHC performance relative to spending. On the flipside, the province of Balochistan had the lowest performing divisions, with scores ranging from 71.38% to 82.33% (Faraz, 2019).

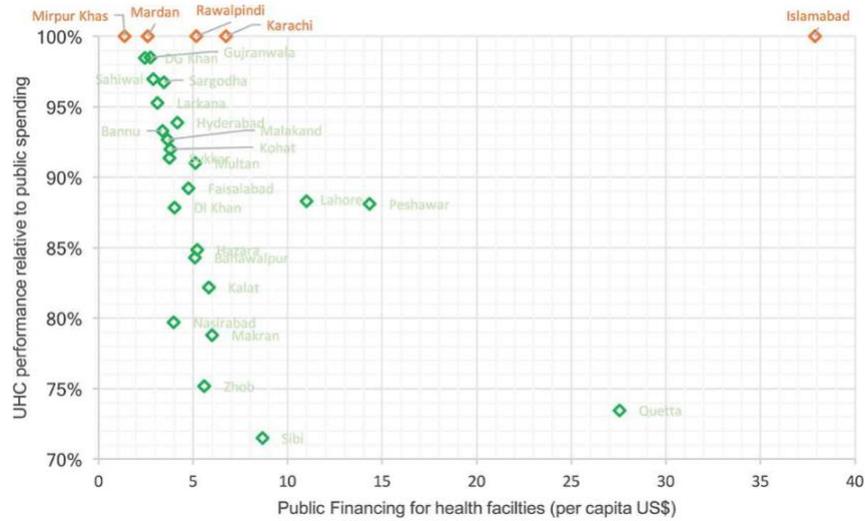


Figure 9: UHC performance relative to public spending in 28 divisions of Pakistan (Source: Faraz, 2019)

The variations in intra-provincial performance can be depicted by the analysis of two divisions within the province of Punjab: Rawalpindi and Bahawalpur. Per capita public spending was similar in both divisions – USD 5.16 in Rawalpindi and USD 5.10 in Bahawalpur. However, Rawalpindi had better coverage for all other output indicators.

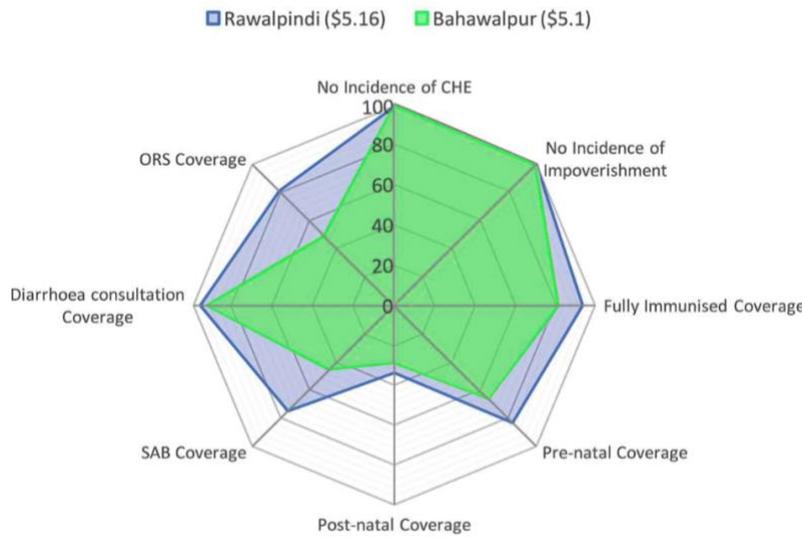


Figure 10: Comparison of UHC progress between Rawalpindi and Bahawalpur (Source: Faraz, 2019)

Division-level indicators for health system organisation and governance were not available at the time of research to synthesise plausible reasons for variation in intra-provincial and inter-provincial performance. There are, however, areas that could be further explored in this regard (Faraz, 2019):

- Proximity to health facilities was associated with higher efficiency scores, possibly because physical access to health services has been found to be a key factor influencing their use.
- Availability of health providers - lady health visitors and private hospitals – corresponded to positive efficiency scores, while public hospitals and informal or untrained providers had a negative correlation.

- Correlation for service readiness in health facilities hint towards community preferences and experiences, such as the availability of a doctor, shorter waiting times, and higher perceived quality were all important determinants of the utilisation of health facilities.

Home visits by community health workers and the presence of private dispensaries in rural areas could have reflected in better service coverage. Similarly, poor quality of services by the informal or untrained providers, and the long distance and travel time to reach public facilities could have impacted service coverage scores.

This research presents a snapshot of the variation in UHC performance at the provincial level and results provide support for the premise that progress towards UHC is possible even at lower levels of public spending – but with appropriately prioritised spending. With the current fiscal constraints on public health expenditure in Pakistan, it is necessary to explore alternative strategies for enhancing the efficiency of the health system, especially by leveraging resources available external to the public sector.

4 Recommendations & Way Forward

Despite the introduction of programmes and initiatives intended to improve the long-neglected state of public health in Pakistan, they have not offered a remedy to the systemic weaknesses present. The impact of these weaknesses has only perpetuated with the Covid-19 health emergency and reinforce the need for a strong and resilient health system to manage the shifting demographic and disease trends, ensure effective crisis management and fast-track progress toward UHC.

This section aims to identify the components that require reorientation and present prioritised steps needed for accelerating progress.

4.1 Focus Areas

Strengthening Pakistan's health system requires strategic reorganisation of healthcare delivery consistent with community needs, elevation of preventative and promotive healthcare strategies, and targeted investment in the following core system components.

- **Service Delivery:** Wide-spectrum improvement of service delivery with a holistic focus on facilities, workforce, public health agencies, accurate and integrated health information and data systems, emergency preparedness and response activities, quality assurance mechanisms and health technologies.
- **Financing:** Creation of innovative financing models are key to spreading the financial risks of illness across a population and controlling the quality of care, provision of services and their equitable distribution.
- **Capacity Enhancement:** The development of knowledge, skills, commitment, structures, systems, and leadership to enable efficient health delivery and promotion. To do this effectively, work is required at individual, organisational and community levels through enhanced communication and technologies.
- **Public Policy and Legislation:** Devising a synergistic set of policies that must be supported by structures and mechanisms that facilitate collaboration across all health sub-sectors. These include good governance, robust systems of procurement, supply chain for medicines and policies for enabling the private sector to not just provide services but also increase investment in healthcare.
- **Governance and Leadership:** Bringing together the different groups involved in patient care to deliver services that are consistent and coordinated from the patient's continuum of care. Too often, providers focus on single episodes of treatment, rather than the patient's overall well-being. This approach will reduce inefficiencies and streamline the patient's journey.
- **Digital Transformation:** Digital transformation is a key enabler to deliver effective and efficient care across various population segments. It spans across patient-centric technologies to system-process oriented usage to increase efficiency. Innovation is key in adapting different levels of digital transformation across a delivery system. Recent experience with Covid-19 has highlighted the criticality of digital technologies to maintain access to care despite infection control challenges.

4.2 Strategic Alignment of Roles

According to the WHO, achieving UHC requires sufficiently resourced country health systems along with strategies to promote spending efficiency. Private sources of healthcare financing contribute significantly to national health expenditure in many LMICs. Evidence from The World Bank suggests that simply increasing funding to stimulate effective change is not sufficient. Evidence cited in the 2010 World Health Report suggests that 20% to 40% of resources spent on health are lost due to inefficiency (Faraz, 2019). It emphasized the need to prioritise funding to design technically sound interventions,

and monitor results that are geared toward effective and equitable targets for universal healthcare (Faraz, 2019).

Underdevelopment of the health sector is a general trend in emerging and developing countries, which is forcing governments to explore innovative ways to bridge structural gaps in service delivery. One such very important avenue is to look to engage the private sector to complement public sector efforts. While this is naturally focused on addressing deficits in financing, it also covers provision, development and retention of healthcare professionals, and improving standards of service delivery (governance, clinical, operations, sustainability etc.). Several studies indicate that private healthcare delivery is significant not just from a healthcare standpoint but also from an economic perspective. However, it is important to note that models of private sector contribution have to be designed and structured with careful consideration. Private providers, being market-driven actors, are heterogeneous in their objectives, size and quality, and need to be aligned to respond appropriately to challenges and opportunities. Policies must evolve to be reflective of needs and requirements of the health sector and cater to the complexity of private sector contribution. The goal must be maximisation of impact and achievement of outcomes through private sector involvement (McIntosh et al., 2016).

Both, the public and private sector, deliver healthcare in most emerging economies and each sector have a role crafted to strengthen health systems. For the private sector, that role is becoming increasingly important and is growing. In the case of Pakistan – already a mixed system with limited resources and multiple priorities – the private sector needs to play the right role to progress the country's journey toward UHC achievement and delivering the essential social, political and economic goal of health for all.

The public sector should make an effort to calibrate its focus to improving the regulatory framework, national policy setting, disaster management and coordination, guiding financing mechanisms and setting standards for quality and patient safety. Through policy frameworks, it should define and support the role of the private sector. This will not only enable the private sector to have a clear mandate to provide safe, efficient and effective healthcare but also help the public sector concentrate on the lower socioeconomic strata of society and ensure a minimum service package can be provided for every citizen. It will provide a platform for objectively assessing standards across the country and build a systems approach to formally develop the healthcare industry – essentially contributing to the economic growth.

There is growing consideration of the potential contribution of the private sector in achieving UHC – only reinforced by evidence from the private sector's engagement and leveraging its capacity across other HICs and LMICs. The private sector has been utilised in various models across the world. For example, in the United Kingdom, the privately contracted General Practitioners are responsible for providing care for a catchment population and ensuring the care is efficient and effective. Clear deliverables and a partnership model between the government and private providers can bring efficiency to the system and increase value for all stakeholders by ensuring aligned provision of services in an equitable manner.

The private sector in Pakistan, in a social and commercial capacity, is serving and providing healthcare at different levels. Shifting the government's focus to becoming a responsive and effective regulator, and potential purchaser of the services will alter the private players' incentive to expand scope across newer geographies and service lines. A health-competitive environment will improve quality for the population since the private sector is considered more efficient in delivering innovative solutions. Pakistan's private sector already performs a large social contribution through its work to enhance the lives of many and a government mandate can formally introduce a strong CSR component to commercial endeavours.

Tapping the potential of private sector contribution to improve the overall health service delivery architecture will require more robust engagement and stewardship from the government. Both can benefit the system by sharing experience and expertise in a wide range of disciplines including strategic planning, research and development, affordable medicines, workforce training, digital solutions, logistics and supply chain management, communication and engagement, and financial solutions.

Evidence points to four major factors that impact private sector engagement (Sturchio, 2019):

1. Political
2. Organisational
3. Economic
4. Legal & Regulatory

Analysis of each of these factors is discussed below to highlight key challenges and potential solutions to enable positive private sector participation.

1. Political Factors

Consensus building among political parties, over and above their vested agendas, is a critical need of the moment. Historical path dependency can be a challenging factor as it creates polarisation and has a negative impact on various correlating factors curtailing the development of healthcare as an industry with strong social responsibility.

A consensus on essential services to be offered could be a good starting point to avoid highly visible controversial mega-projects launched by every government over the years. Healthcare is a right and the sector should be shielded from compromised outcomes due to political interference. If the government shifts its focus to a more regulatory and legislative role in developing healthcare, it can help mitigate some of these chronic risks. Such a role should be supported by policy and legislative cover to sustain momentum over successive leadership changes. Certainty of the policy environment will be able to promote private sector participation.

2. Organisational Factors

The current health infrastructure in Pakistan is fragmented both geographically and in terms of services offered. This can be re-evaluated in partnership with the private sector and provide an opportunity to contribute by combining resources, aligning the supply chain and provide missing services for communities. This will help mitigate the current focus on building large-scale facilities that span across all levels of care with a mixed result in improving overall population health. It will also open avenues to provide security to current employees in the public sector to work across both private and public sectors and learn new skills to enhance their contribution.

3. Economic Factors

Economic alignment between public and private providers can be a critical success factor in developing a cohesive approach. Four key areas are crucial for aligning incentives to forge mutually beneficial participation.

Value for Money

The private sector thrives on efficiency and effectiveness, keeping it competitive in a market structure. Bringing the private sector on board to achieve UHC should offer benefits to various stakeholders and consumers while maintaining a balance. However, due to an inherent difference in structure, it may be challenging to compare public and private sectors. Both tangible and intangible benefits, and explicit and implicit costs, therefore, should be included in economic evaluations and measurement of performance to provide an equitable foundation for comparison.

Cost Structure

The public sector has to develop robust infrastructure to engage and sustain their relationship with the private sector. This infrastructure is critical in maintaining an objective relationship to achieve desired outcomes such as expanding access to various population segments. In any financial analysis, such upfront costs may develop a perception of high expense and low return. However, it should be analysed in the larger context to provide a clear analysis on both up and down-stream benefits over a longer term.

Provider Payment Incentives

Developing mechanisms to incentivise service providers and their behaviour is a delicate balance. It is a complex, multifaceted issue and should always be developed in partnership with stakeholders to ensure an alignment in vision, strategy and execution. This is critical for developing accurate metrics to monitor performance and guide behaviour to a desired outcome. Several models to achieve this exist and an in-depth contextual understanding is required to develop a viable solution.

Level Public-Private Playing Field

Structuring of contracts, particularly financial and transactional modalities like reimbursement methodologies, should consider the challenges of capital deployed by private actors which is driven by shareholder value. A transparent, fair and comparative formula for return on capital should be devised to level the playing field for factors like subsidies that are exclusive to the public sector.

4. Legal & Regulatory Factors

It is prudent to build healthcare-specific legislation at patient, provider and government levels, since the existing civil and criminal framework is currently utilised to prosecute any nature of grievance. There is no formal arbitration channel to provide a platform to address issues faced by patients. On the other hand, protecting providers against frivolous claims is equally important. Malpractice and medical negligence are areas of immediate attention to ensure service quality. This will provide a formal mechanism to address such requests and can be achieved at the federal level, where initial claims can be made, triaged and addressed to appropriate channels for further consideration.

4.3 Transformation Roadmap

The approach to reorienting these components in the quest of UHC is informed by the experiences of various other LMICs that have highlighted key lessons for successful and sustainable implementation. These solutions can also have an impact on development of new skillsets, creation of jobs and supporting a knowledge-based economy. A roadmap for improvement may be built on the foundation of learning from other markets. The recommendations below reflect the initial phase of transformations proposed.

Service Delivery	<ul style="list-style-type: none"> - Quality Systems - Design & Construction Standards
Financing	<ul style="list-style-type: none"> - Financing Reforms - Strategic Purchase Programme
Capacity Enhancement	<ul style="list-style-type: none"> - Workforce Capacity - Provider Performance
Public Policy & Legislation	<ul style="list-style-type: none"> - Investor-friendly Environment - Public Private Partnership (PPP) Framework
Governance & Leadership	<ul style="list-style-type: none"> - Decentralisation - Inter-sectoral action and inclusion
Digital Transformation	<ul style="list-style-type: none"> - Health Information Systems & Innovation - Digital Technologies

4.3.1 Service Delivery

Quality

A robust quality-of-service driven system must be instituted to allow investors the comfort to invest capital and manage risk. Consumer preference can be subjective and hence it is important to ensure that private service providers enter the sector on strong footing. Enacting and implementing such standards uniformly will also have a positive impact on the provision of services at government facilities and the adoption of certain essential safety measures at all healthcare institutions.

Various government and international accreditation bodies can be engaged to partner in developing appropriate healthcare governance structures in both public and private spheres. Numerous examples exist across LMICs, including India, Indonesia, Kenya, Ghana, Vietnam, Thailand, Philippines and Nigeria, of adopting internal accreditations as a standard benchmark to improve provision of quality and care (World Health Organization 2007). The evolution of the Joint Commission International (JCI) is a response to such demand, where the JCI Accreditation is now considered mandatory by all public and private healthcare institutions in many countries.

Case Study: USA and GCC Countries

USA and GCC countries have extensively used partnerships with international accreditation and standards bodies to improve not only delivery of healthcare but also the quality of care patients experience. This has served to enhance patient safety. Accreditation applies processes of self-assessment and external peer assessment used by healthcare organisations to accurately assess their performance in relation to established standards and to implement ways to continuously improve.

The US engages primarily in hospital accreditation that is provided internally. Many organisations provide accreditation for internal healthcare organisations, including the AAAHC Accreditation Association for Ambulatory Healthcare, doing business internationally as *Acreditas Global*, Community Health Accreditation Program (CHAP), the Joint Commission, TJC, Accreditation Commission for Healthcare, Inc. (ACHC), the Exemplary Provider Programme of The Compliance Team, American Accreditation Commission International (AACI), and the Healthcare Quality Association on Accreditation (HQAA).

Other countries, including some in the GCC, have looked towards accessing the services of major international healthcare accreditation groups based in other countries, such as Joint Commission International (JCI) and United Kingdom Accreditation Forum (UKAF), to assess their healthcare services.

Over time, some countries have adapted and developed their own standards. For example, the Central Body for Accreditation of Healthcare Institutions (CBAHI) in Saudi Arabia is a parallel healthcare quality and safety accreditation system to ensure all healthcare facilities meet the minimum requisite standards. It has evolved into a quality ranking system published publicly to provide patients with a choice. Such a system has also helped in shaping the reimbursement model. A similar mechanism can be instituted to commission healthcare facilities to ensure that growth is aligned to quality standards and infrastructure is developed to support the standards. The adoption of quality systems impacts every facet of the delivery system including facilities, clinical and medical services, human capital, information systems, governance and leadership.

Design & Construction Standards

A basic building criterion for various healthcare facilities should be devised. This will help improve the quality of infrastructure, with a resultant impact on patient experience, clinical processes, efficient workflows and ultimately patient outcomes. A few guidelines that exist at present face challenges of enforcement. Developing these standards will help delineate the types of facilities and control growth of non-compliant and informal healthcare facilities. Furthermore, to ensure quality of infrastructure, this could be financed and built with public and private support combined.

4.3.2 Healthcare Financing

Financing Reforms

Without comprehensive financing reforms, it will be difficult to control the quality of care, provision of services and their equitable distribution. Health financing coverage is typically defined in terms of the breadth and depth of coverage, as well as the resulting level of financial protection. Financial protection in health is generally taken to broadly imply that households and individuals:

- (1) Obtain healthcare when needed and are not prevented from doing so by excessive costs;

- (2) Do not incur costs when they access healthcare that prevents them from obtaining other basic household necessities – including food, education and shelter;
- (3) Do not fall into poverty due to excessive medical care costs and lost income resulting from illness.

A range of generic health financing “models” such as national health services (NHS), mandatory health insurance (MHI) funds, and private health insurance exist. A simplified categorisation of health insurance schemes is used here, including:

- (1) General-tax financing, managed by an NHS or ministry of health (MOH);
- (2) Payroll tax financed MHI managed by a quasi-public entity; and
- (3) Private sector–based health insurance financed by contributions to private voluntary insurers

Globally, around 100 countries have health financing systems that are predominantly funded through general taxes and another 60 have payroll tax based MHI systems. Only a few countries have private health insurance financed systems (e.g. the United States). In practice, however, most countries have mixed models. Incentives should be provided to institute a third-party payment system, which can help with the risk pooling, universal definition of essential benefit package and employer/employee protection. A federal body should be mandated to provide guidance, resources and frameworks to develop the healthcare insurance industry in Pakistan.

The Council of Cooperation Health Insurance in Saudi Arabia is an example of such a body. Established in 1999, it is mandated to supervise the implementation of the cooperative health insurance system, which aims to provide healthcare and regulate it across the country.

Health coverage has at least three separate and interrelated dimensions:

- (1) The number of people covered by organised (public and private) financing initiatives (breadth of coverage);
- (2) The extent (number and type) of services covered (depth of coverage);
- (3) The resulting impacts on health outcomes and financial protection against high out-of-pocket expenditures.

In expanding coverage to promote health outcomes and financial protection, countries need to raise sufficient and sustainable revenue efficiently and allocate it equitably to provide individuals with a basic package of essential services. Health spending has typically been outpaced by economic growth and is expected to continue on this path. This necessitates financial sustainability to be a key factor from the outset by ensuring the extent of the challenge is diagnosed properly. Simultaneously, revenue sources must be broadened while containing costs through an appropriate use of resources. These revenue streams must be managed to pool health risks optimally (equitable and efficient) so that individuals are provided with “insurance” coverage against unpredictable catastrophic medical care costs. Lastly, the purchase of health services must be done in an allocative and technically efficient manner (OECD, 2016).

A focus on providing good coverage for a well-defined basket of benefits is preferable to shallow coverage for any service with high patient cost-sharing. This package must both improve health outcomes and provide financial protection against unpredictable catastrophic or impoverishing financial losses caused by illness and injury.

Strategic Purchase Programme

The government could consider implementing a strategic purchase programme to procure services from public and private providers. PPP models can be used to formalize such structures, whereby, the management and ownership is transferred to a private entity, while the government purchases the services. This can help build capacity, improve efficiencies and expand access across less privileged areas.

The overlapping role of the government in financing, providing, and regulating healthcare has inherent limitations of accountability and quality of service delivery. High capacity in the private sector for delivery of health services can be tapped to reduce the deficit in the public sector. However, in the

absence of a progressive stewardship by the government, services delivered in the private health sector are now at varying levels of quality and cost. Having recognised the potential value of the private sector in serving the assurance function of UHC, “the government must therefore adopt the function of strategic purchasing. They should leverage this purchasing power to obtain the desired services from service providers, both private and public, through autonomous structures created for this purpose (Sturchio, 2019).”

In an attempt to move towards UHC, many low and middle-income countries (LMICs) have reformed, or are in the process of reforming, health financing systems – often moving from a public integrated system to a public purchasing-based system (i.e. public contract system) in which purchasers and providers are separate organizations (Honda & Obse, 2020).

4.3.3 Capacity Enhancement

Building Workforce Capacities

With increasing complexity of healthcare knowledge and fragmentation of delivery infrastructure, it is critical to develop a national human resource strategy. The national strategy should cover healthcare requirements for the population at large and cover both public and private service providers, medical colleges, skills and training institutes. Engagement of the private sector in this vertical will be crucial since it is providing a platform for not just educating, but also training nursing and other allied health staff. This is an area that could be developed in order to close resource gaps, as well as export skilled human capital to other countries, thereby boosting foreign remittances.

Case Study: Philippines

There is a critical shortage of approximately 2.3 million physicians, nurses, and midwives in 36 countries of sub-Saharan Africa (Gelband et al., 2017). The global mobility of nurses is well documented and the pattern of health workforce migration has become increasingly dynamic, involving several countries (Gelband et al., 2017). Reliance on non-native nurses is an international phenomenon and the demand for nursing services is predicted to exceed supply by almost 30% in USA alone (Galambos, 2019). Ageing populations and workforce in developed countries creates a demand pull for nurses out of developing countries. Countries like the Philippines purposely train and develop nursing staff for exporting skilled manpower making the Philippines a major contributor to the global nursing workforce. According to the International Labour Office, in 2010, an estimated 7.2 million nurses from Philippines were working abroad with USD 21.3 US billion in remittances (World Health Organization, 2019).

Provider Performance Reforms

In order to build performance standards applicable to the entire spectrum of roles in the healthcare workforce, a set criterion must be developed. The currently subjective framework can be expanded to include education, competence and skills as the core components. This will help build national criteria to ensure workforce performance is standardized and measured objectively across the healthcare continuum.

4.3.4 Public Policy and Legislation

Investment-friendly Environment

An investor-friendly framework is necessary to attract local and international investment. Healthcare, being a long-term investment that materialises over seven to ten years, requires consistency and continuity in policies to ensure protection for the investor. Foreign ownership, along with repatriation of capital or profit, is also critical in such a framework. Saudi Arabia’s Vision 2030 envisions an increase in FDI from the current ratio of 3.8% to 5.7%. In 2018, Saudi Arabia expanded the so-called “Negative list” to include healthcare – easing the restrictive regulation on hospitals and healthcare institutions from only Saudi ownership to foreign ownership (Gelband et al., 2017).

PPP Framework

While multiple attempts at privatisation have been made in the past, the focus has always been instantaneously divesting the institutions, with little or no support to existing employees, resulting in a backlash and reversals of such decisions. The privatisation of healthcare must follow a different path, due to inherent sociocultural sensitivities.

A comprehensive PPP framework must be built in consultation with all key stakeholders. The aim of the framework is to gradually transform the system by developing corporate governance, quality and safe systems, efficient supply chains, training and repurposing of human capital, and bouquet of health services aligned with population needs. The immediate focus of the government should not be improving financial returns but focus on the structural adjustments as healthcare benefits should be measured at both individual and societal levels over a long term.

The government policy should be cognisant of the tangible and intangible benefits of improved health, such as the benefit to the economy and increase in productivity across multiple sectors. The focus of such PPP frameworks should be to build capabilities within existing human capital with a keen focus on efficiency. Accountable Care Organization journey under Vision 2030 in Saudi Arabia is the most recent example of such a large transformation spanning over ten years. It is gradually shifting the government to take on more of a regulatory role, while the provision of care is provided either through semi-private or private institutions.

4.3.5 Governance and Leadership

Decentralisation

Centralization of public service delivery has evolved over time in many countries. While the length and breadth of this centralisation has varied from country to country, typically, a central Ministry of Health – whether federal or provincial – has decision-making authority in key areas such as policy, staff and financial management. Among other hurdles, a centralised system can be challenging in managing resources, decision-making, responsiveness to local requirements, and high engagement with local healthcare workers.

Decentralisation can be very effective in managing delivery of care with local support. It can bring decision-making closer to the communities it serves, better understanding of contexts and environments, and deepen the understanding of healthcare challenges, along with participatory policymaking. The extent of decentralisation can be phased to align with local leadership and infrastructure development (Collins, n.d). Recent development in Local Government structures will have implications on how health services are designed, delivered and managed in provinces. It will be important to ensure that the implementation of new systems aligns closely with UHC goals and objectives.

Inter-sectoral Action & Inclusive Involvement

The government must strive to develop a common vision and platform with multiple stakeholders from across sectors to achieve health outcomes. For instance, linkages with education, food security, agriculture and livestock, housing, sanitation, water, environment, IT, local government and social protection sectors will be important to support the health sector. The government can play a facilitating role in providing a platform to hold relevant conversations, while leveraging help from the semi-private sector.

The private sector can make improvements and build capacity in partnership with the government to strengthen medical manufacturing, supply chain management and delivery systems and building health workforce capacities especially in resource-constrained settings. Other areas of such collaboration include improving humanitarian assistance and disaster relief, increasing policy and practitioner focus on prevention and wellness, and tackling counterfeiting and improving product safety and efficacy.

4.3.6 Digital Transformation

At the national level, a legislative framework for health information that covers vital registration and disease reporting does not exist. Building knowledge and capacity within a healthcare system is critical to efficient and effective delivery of quality care. It can transform delivery by aggregating knowledge across a vast network and closing the gap between knowledge and appropriate care interventions. This includes evaluation systems, data management, knowledge sharing and monitoring mechanisms – all important areas for both public and private sector participation and investment. National and regional registries are critical to building this information architecture and can support efficient and effective deployment of resources. Such information repositories also serve as the backbone for a effective and timely disaster response.

Case Study: Saudi Arabia

The Kingdom's Vision 2030 identifies, as a key focus, improved efficiency and effectiveness of the healthcare sector through the use of information technology and digital transformation.

Saudi Arabia's Ministry of Health has put forward numerous policies regarding the Saudi Health Information Exchange (SHIE) initiative (also referred to as SeHe – the Saudi eHealth Exchange). Under the SHIE framework, ongoing technological advancements to the healthcare system are planned on two main fronts: the first is the adoption of secure solutions to enable streamlined patient care via online health records, and the second is utilising anonymous patient data to inform research.

This can be useful to the public sector, for instance, for informing public health policy responses (e.g. containment and prevention of epidemics or targeting health awareness programmes). It can also prove invaluable to the private sector in developing new treatments and pharmaceuticals. Researchers in both sectors could benefit tremendously.

Permitted uses of the SHIE system specifically include:

- Patient treatment and necessary support by the healthcare provider;
- Operational purposes, involving quality assurance and health service management;
- Public health purposes, such as public health surveillance for disease control, public safety emergencies and for providing information to policymakers.

The Health Information Technology for Economic and Clinical Health (HITECH) Act is the most recent example of support for HIE in the USA. Under HITECH's 'Meaningful Use' Stages 2 and 3, electronic health records need to be connected in a manner that can provide electronic exchange of health information between providers thereby supporting efforts to improve the quality of healthcare and achieve improved patient health outcomes (Akhlaq, 2016).

Innovation

Innovation needs to be binded with service delivery to maximise efficiency of health spending. Reforms in delivery systems should, therefore, prioritise investment in non-hospital services. This would mean investing in early health promotion and disease prevention, shifting service from hospitals to primary care and the community, reviewing the scope of practice for healthcare professionals besides physicians, and making better use of big data and information systems.

Digital Technologies

Spending on medical technology accounts for high investment and ought to be properly planned based on an optimal balance of cost-benefit to achieve the desired outcomes. These are areas in which the private sector interest can bring value, since it provides lucrative investment opportunities and mutually beneficial solutions.

Another example of innovation is telemedicine, which is utilising existing technology to bring innovative and affordable approaches to healthcare delivery in Pakistan. Public programmes such as

the Government’s Covid Health Advisory Platform and Telehealth platform and private programmes, such as Sehat Kahani, provide mobile-based telehealth solutions. They leverage the high levels of mobile penetration across Pakistan and, through partnerships, connect underserved communities with qualified medical practitioners for telephonic or virtual consultations.

Mobile technology also has the capacity to reach underserved communities with general preventative health information in easily understood formats given the country’s illiteracy challenges. With private sector investment and partnerships, telehealth and telemonitoring programmes can improve communications to increase outreach of public health promotions and behaviour-change initiatives.

Case Study: Tanzania

In Tanzania, a partnership with the country’s second-largest telecommunications company, Airtel Tanzania, facilitates a free service that sends text messages about infant care to mothers and pregnant women. The impact over a two-year period saw approximately 500,000 parents receive 40 million text messages about safer motherhood practices and behaviours, and contributed to reduced infant mortality by 64% and maternal mortality by 55% (IFC, 2017).

The proposed reforms in the health sector outline a mammoth undertaking involving support and commitment from political leadership, bureaucracy and private enterprises. The proposed agenda also requires significant capacity enhancement to be able to conceive, design, plan, implement and monitor such wholesale programmatic interventions across the board at all layers – federal, provincial and sub-provincial. It will be important to phase out and sequence these reforms to be able to manage the scale and internalize the disruptions for organic and sustained support. The table below presents a high-level proposal of phasing the transformation.

Focus Area	Phase I	Phase II
Service delivery	Quality systems	Construction standards
Health financing	Financing reforms	Strategic purchase program
Capacity Enhancement	Workforce capacities	Provider performance reforms
Public policy & legislation	Investor-friendly environment	PPP framework
Governance & leadership	Decentralization	Intersectoral action & inclusive involvement
Digital Transformation	Health Information Systems & Innovation	Digital technologies

4.4 Critical Success Factors

Healthcare policy requires a long-term focus to ultimately achieve sustained improvement in healthcare outcomes. For the achievement of UHC, there are pertinent risks that can disrupt adoption of the policy changes needed.

1. Continuity of Political Support and Strategic Investments

Adoption of pro-UHC policy is a complex process that typically involves a phased implementation

approach over a long period of time. Continuity and progress can be adversely affected with any disruption in political support and strategic investments, leading to sunk costs, loss of public support and wasted time. Adaptability to changing macro trends is critical to success so ongoing monitoring, evaluation and adjustment will be necessary (Balabanova D et al., 2013).

2. Alignment with Social and Demographic Needs

Social and demographic needs are critical elements in the development of requirement-aligned sustainable solutions. This alignment is critical in developing and maintaining broad-based public support, for engagement with stakeholders and congruence of diverse interests and incentives. Local adaptation of successful approaches from other markets is critical for long-term sustainability (World Bank Group, 2015).

3. Availability of Evidence

High-quality and timely evidence is critical in ensuring evidence-based decision making at every level and avoiding subjective evaluations. However, ensuring and maintaining quality of data is a challenging task due to resource availability, timeliness in collection and analysis, and the development of a knowledge base ("Towards Universal Health Care in Emerging Economies", 2017). Design and establishment of a rich evidence ecosystem will be essential to support a holistic and sustained approach to healthcare reform.

5 Appendix I: Punjab Healthcare Strategy 2019 – 28

Objectives (adapted from the original policy document)

1) Maternal and Child Health (MNCH), Nutrition, & Family Planning (FP)

Objective 1: To ensure timely free access to a quality MNCH services irrespective of ability to-pay, to all the people in Punjab.

Objective 2: To institutionalise quality of care in MNCH services delivery system

Objective 3: To ensure timely free access to a quality nutrition health services irrespective of ability to-pay, to all the people in Punjab

Objective 4: To institutionalise quality of care in Nutrition services delivery system

Objective 5: To ensure timely free access to quality FP services irrespective of ability to-pay, to all the people in Punjab

Objective 6: To institutionalise quality of care in FP services delivery system

2) Preventive Health Services including Communicable and Non-Communicable Diseases (NCDs)

Objective 1: To ensure availability and accessibility of preventive health service at all levels of Health Facilities and through community health workers

Objective 2: To strengthen/up scale the screening, testing and treatment services for communicable and non-communicable diseases

Objective 3: To have in depth study of the Family Health and DCP3 Concepts

3) Patient Safety and Quality of Care

Objective 1: To have a safe health system that minimises harm to patients, consumers, and reduces costs associated with preventable adverse events

Objective 2: To have a health system that maximises the potential for safe and high-quality care by supporting and encouraging patients and the community members to participate as an equal partner in healthcare

Objective 3: To have a health system that supports safe clinical practice by having robust and comprehensive information system

Objective 4: To provide safe and easy access to persons with disabilities at health facilities complying Accessibility Codes

4) Medicines and Biomedical Equipment

Objective 1: To improve logistic and supply chain management system for regular, uninterrupted and adequate availability of essential medicines at all levels of healthcare

Objective 2: To regularly review the Essential Medicine List (EML) for making it more responsive to changing health needs

Objective 3: To ensure proper and enough storage of essential medicines at provincial and district level

Objective 4: To improve quality of medicines by enforcement of Medicine Regulation in Punjab at all levels of manufacturing, storing, testing and sale

Objective 5: To ensure registration of biomedical equipment and development of SOPs for their regulation

Objective 6: To develop a facility wise standard list of equipment as per WHO guideline

Objective 7: To ensure availability of updated functional equipment at all levels

Objective 8: To regularise procurement activities

Objective 9: To hire new and build capacity of existing biomedical engineers and technicians

Objective 10: To standardise specification for all biomedical equipment as per the requirement of each type of health facility

5) Health Management Information System

Objective 1: To enhance scope and contents of health data systems for policy and planning

Objective 2: To plug data gaps by instituting additional approaches for autonomous tertiary hospitals and private sector

Objective 3: To establish comprehensive system of Health Dimensions of Civil Registration and Vital Statistics (CRVS) at all levels of health facilities including public and private sector

Objective 4: To develop a mechanism for dissemination of the performance of health sector Punjab Health Sector Strategy 2019-2028

6) Health Governance and Accountability

Objective 1: To strengthen both Health departments for their key roles in health policy making, programming, human resource management, monitoring and evaluation

Objective 2: To reorganise/strengthen DGHS for ensuring implementation of health strategy initiatives including all preventive programs in the province

Objective 3: To decentralise health management and service delivery giving optimal autonomy to decentralised districts and autonomous health facilities

Objective 4: To establish a robust, comprehensive and responsive regulatory regime to provide optimal regulatory environment to healthcare delivery across Punjab

Objective 5: To promote a culture of community participation and empowerment to make healthcare delivery system responsive to the community needs

7) Human Resource for Health (HRH)

Objective 1: To establish a governance and leadership structure for HRH policy, planning, production and management

Objective 2: To ensure availability of healthcare providers where required

Objective 3: To establish ways of improving quality and productivity of HRH

Objective 4: To improve retention of health workers and revitalise the concepts of continuous professional education and training

Objective 5: To update medical education curriculum with a focus on community-oriented medical education

8) Healthcare Financing & Public Private Partnership

Objective 1: To engage private sector in poorly covered areas by the Public Health Sector

Objective 2: To enhance accessibility and availability of Free of Cost (Government Sharing) Health Services to the poor segment of the society by incorporating the private sector

Objective 3: To ensure sustainable Financial-Models in Healthcare

9) Health Disaster Management and Emergency Medicine

Objective 1: Enhanced Coordination among all stakeholders

Objective 2: Prioritisation of highly vulnerable areas for targeted interventions

Objective 3: Improved capacity of relevant staff in emergency response and relief mechanism

10) One Health including Environmental Health

Objective 1: To provide adequate and safe drinking water as well as adequate sanitation facilities to communities

Objective 2: To bring measurable reduction in food-borne diseases and food poisoning cases by provision of safe food

Objective 3: To bring improvement in air quality for reduction of Acute Respiratory Infection cases in the most vulnerable population (e.g. women, children and elderly)

Objective 4: To protect the people and environment from the harmful and adverse effects of Hospital Waste by implementation of Hospital Waste Management Rules

Objective 5: Establish and maintain high-level commitment at all relevant levels of government and key stakeholders including the private sector

Objective 6: Institutionalise One Health to achieve sustainability and legitimacy of the One Health Platform to coordinate multi-sectoral collaboration

Objective 7: Strengthen prevention, preparedness and response to zoonotic diseases, AMR and biosecurity threats

Objective 8: Strengthen capacities (competencies, tools, strategic thinking, leadership, coordination) of the One Health platform and other stakeholders to effectively address zoonotic disease threats

Objective 9: Enhance behaviour change communication and awareness of the value of One Health Approach

Objective 10: To ensure provision of women friendly WASH services including Menstrual Hygiene Management for both adolescent girls and women, at all levels not limited to only office spaces, health facilities, medical educational institutes etc.

6 Appendix II: List of Public Health Legislation in Pakistan

Legislation	Year
The Public Health (Emergency Provisions) Ordinance	1944
West Pakistan Epidemic Diseases Act	1958
Punjab Vaccination Ordinance	1958
Punjab Juvenile Smoking Ordinance	1959
Punjab Prohibition of Smoking in Cinema Houses Ordinance	1960
Punjab Pure Food Ordinance	1960
Eye Surgery (Restriction) Ordinance	1960
Allopathic System (prevention of misuse) Ordinance	1962
Pakistan Medical and Dental Council Ordinance	1962
Pharmacy Act	1967
The Pakistan Nursing Council Act	1973
Drugs Act	1976
Medical & Dental Degree Ordinance	1982
Punjab Health Foundation Act	1992
Punjab Transfusion of Safe Blood Ordinance	1999
Mental Health Ordinance for Pakistan	2001
Punjab Medical and Health Institutions Act	2003
Injured Persons (Medical Aid Act)	2004
King Edward Medical University, Lahore Act	2005
Human Organ Transplant Ordinance	2007
Pakistan College of Physicians and Surgeons Ordinance	1962
The University of Health Sciences Lahore Ordinance	2002
Fatima Jinnah Medical University, Lahore Act	2015
The Health Services Academy Restructuring Act	2018
The Islamabad Healthcare Regulation Act	2018
Health Services Academy Ordinance	2002
National Institute of Health Ordinance	1980
Pakistan Health Research Council Act	2016
Protection of Breastfeeding and Child Nutrition Ordinance	2002
Punjab Healthcare Commission Act	2010
Punjab Reproductive, maternal, Neonatal and Child Health Authority Act	2014
Transplantation of Human Organs and Tissues Act	2010
Prohibition of Smoking and Protection of Non-Smokers Health Ordinance	2002

Shaheed Zulfiqar Ali Bhutto Medical University Islamabad Act	2013
Discontinuance of Medical reimbursement Act	1972
Medical Colleges Governing Bodies Ordinance	1961
Medical Officers Regularisation of Appointments Act	1992
Medical Qualifications Information Ordinance	1960
National University of Medical Sciences Act	2015
Pakistan Veterinary Medical Council Act	1996
Drugs and Medicines Indemnity Act	1957
Epidemic Diseases Act	1897
National Institute of Cardiovascular Diseases (Administration) Ordinance	1979
Unani, Ayurvedic and Homeopathic Practitioners Act	1965
Vaccination Act	1880
Pakistan Kidney and Liver Institute and Research Centre Act	2019
Medical and Teaching Institutions Act (MTI Act)	2019

7 References

- Ahmed, R. (2017, December 14). Pakistan's Invisible Health Crisis. *The Diplomat*.
- Andrews, D.R., Dziegielewska S.F. (2005). The nurse manager: job satisfaction, the nursing shortage and retention. *Journal of Nursing Management*, 13(4), pp 279-371. doi: 10.1111/j.1365-2934.2005.00567.x
- Baker Botts. (2018, December 20). Foreign Direct Investment in Saudi Arabia: Important Changes in the Private Healthcare Sector. Retrieved from <https://www.bakerbotts.com/insights/publications/2018/12/foreign-direct-investment-in-saudi-arabia-private-healthcare>
- Banerjee, A. V. and Duflo, E. (2008). What is Middle Class about the Middle Classes Around the World? *Journal of Economic Perspectives* 22(2).
- Beliger M et al. Pakistan: Health equity and financial protection report. Washington, DC: World Bank Group: 2012. Available at: <http://documents.worldbank.org/curated/en/754461468064430920/Pakistan-Health-equity-and-financial-protection-report>
- Constable, P. (2017, September 29). A Disaster in the Making: Pakistan's Population Surges. *The Washington Post*.
- Faraz, K. (2019). Assessing the Efficiency of Sub-National Units in Making Progress Towards Universal Health Coverage: Evidence from Pakistan. *Health Systems & Reform*, 6(1). doi: <https://doi.org/10.1080/23288604.2019.1617026>
- Fusheini, A. & Eyles, J. (2016). Achieving Universal Health Coverage in South Africa Through a District Health System Approach: Conflicting Ideologies of Healthcare Provision. *BMC Health Services Research*, 16(558). doi <https://doi.org/10.1186/s12913-016-1797-4>
- Gedik G: Health Workforce Mobility. 2012, Human Resources for Health, World Health Organization Western Pacific Regional Office
- Gottret, P., Schieber, G. J., Waters, H. R. (Eds.). (2008). *Good practices in health financing: lessons from reforms in low and middle-income countries*. World Bank.
- Hafiz Tunio, Haunting Tales of Corruption: Ghost Hospital Running in Chief Minister's Backyard. The Express Tribune. June 8, 2015. <https://tribune.com.pk/story/899581/haunting-tales-of-corruption-ghost-hospital-running-in-chief-ministers-backyard/>
- Hasan Mansoor, Health dept inquiry finds over 3,500 ghost doctors, Dawn. Oct 19, 2013. <https://www.dawn.com/news/1050245>
- Helen Smits, Anuwat Supachutikul, Kedar Mate, Hospital Accreditation: Lessons from Low-Income Countries. *Globalization and Health*, Volume 10, article number 65 (2014). <https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-014-0065-9> <https://www.oecd.org/els/health-systems/Universal-Health-Coverage-and-Health-Outcomes-OECD-G7-Health-Ministerial-2016.pdf>
- Institute of Health Policy and Development Studies. (2005). Migration of health workers: Country case study Philippines. *International Labor Office*. Retrieved from https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/--sector/documents/publication/wcms_161163.pdf
- Khalid, M. & Sattar, A. (2016). Households Study on Out of Pocket Health Expenditures in Pakistan. *Forman Journal of Economic Studies*, 12, pp75-88. Retrieved from <https://www.fccollege.edu.pk/wp-content/uploads/2017/03/Paper-5-Households-Study-on-Out-Of-Pocket-Health-Expenditures-in-Pakistan-by-Mahmood-Khalid-and-Abdul-Sattar.pdf>
- Kharas, H. (2017). The Unprecedented Expansion of the Global Middle Class. *Global Economy and Development at Brookings*.
- Kumar, S. & Bano, S. (2017). Comparison and Analysis of Healthcare Delivery Systems: Pakistan vs. Bangladesh. *Journal of Hospital & Medical Management*, 3(1). doi: 10.4172/2471-9781.100020
- Malik, M. (2017). Health Literacy as a Global Public Health Concern: A Systematic Review. *Journal of Pharmacology & Clinical Research*, 4(2). doi: 10.19080/JPCR.2017.04.555632

- Malik, M. A. (2013). The Economics of Health and Healthcare in Pakistan. *Journal of Pakistan Medical Association*, 63(7). Retrieved from <https://jpma.org.pk/article-details/4283>
- Marcus, K., Quimson, G. & Short, S.D. (2014). Source country perceptions, experiences, and recommendations regarding health workforce migration: a case study from the Philippines. *Human Resource Health* 12(62). Retrieved from <https://human-resources-health.biomedcentral.com/articles/10.1186/1478-4491-12-62#citeas>
- McIntosh, M., Channon, A., et al. (2016). What is the Private Sector? Understanding private provision in the health systems of low-income and middle-income countries. *The Lancet*, 388(10044). doi: [https://doi.org/10.1016/S0140-6736\(16\)00342-1](https://doi.org/10.1016/S0140-6736(16)00342-1)
- Nishtar, S. (2006). The Gateway Paper: Health Systems in Pakistan, a Way Forward. *Pakistan's Health Policy Forum*. <http://www.heartfile.org/blog/275>
- OECD. (2016). *Universal Health Coverage and Health Outcomes*. Pakistan Health Service Delivery. (n.d.). *World Health Organization*. Retrieved from <http://www.emro.who.int/pak/programmes/service-delivery.html>
- Pakistan Medical & Dental Council. n.d. "Recognized Medical Colleges in Pakistan." Retrieved from www.pmdc.org.pk/AboutUs/RecognizedMedicalDentalColleges/tabid/109/Default.aspx
- Sara Quirke, Maureen Coombs, Rose McEldowney, Suboptimal Care of the Acutely Unwell Ward Patient: A Concept Analysis. *J Adv Nurs*, Aug 2011; 67 (*0: 1834-45. <https://pubmed.ncbi.nlm.nih.gov/21545636/>
- Shehla Abbas Zaidi, Maryam Bigdeli, Etienne Langlois, Atif Riaz, David Orr, Nasir Idress and Jesse Bump., Health system changes after decentralization: progress, challenges and dynamics in Pakistan. *BMJ Global Health*. January 30, 2019. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6357909/>
- Shehla AZ, National Health Vision. Dawn Newspaper. Sept 5, 2016.
- Sturchio, J. L., Kickbusch, I., Galambos, L. (Eds.). (2019). *The Road to Universal Health Coverage*. Johns Hopkins University Press.
- Subzwari, S.R. (2017). Health Literacy in Pakistan: Exploring new ways of addressing an old challenge. *Journal of Pakistan Medical Association*, (67)12.
- UI Haq, I. (2017, November 28). Exploding Population: Choice Not Destiny – Capturing Pakistan's Demographic Dividend. *World Bank Blogs*. <https://blogs.worldbank.org/endpovertyinsouthasia/exploding-population-choice-not-destiny-capturing-pakistan-s-demographic-dividend>
- UNFPA 2019 State of World Population Report, https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA_PUB_2019_EN_State_of_World_Population.pdf
- Wagstaff, A., & Neelsen, S. (2019, December 11). A comprehensive assessment of universal health coverage in 111 countries: a retrospective observational study. *Lancet Global Health* 8(1). doi [https://doi.org/10.1016/S2214-109X\(19\)30463-2](https://doi.org/10.1016/S2214-109X(19)30463-2)
- World Bank Data <https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=PK>
- World Health Organization. (2014). *Global Health Observatory Data, 2014*.
- World Health Organization. (2016). Primary healthcare systems (PRIMASYS): case study from Pakistan, abridged version. *The Alliance for Health Policy and Systems Research and World Health Organization*. https://www.who.int/alliance-hpsr/projects/alliancehpsr_pakistanabridgedprimasys.pdf?ua=1
- World Health Organization. (2019). *Primary Healthcare on the Road to Universal Health Coverage: 2019 Global Monitoring Report, Conference Edition*. https://www.who.int/healthinfo/universal_health_coverage/report/uhc_report_2019.pdf
- World Health Organization. (2020). *Country Health Profiles*.
- World Health Organization. (2020). *Maternal Mortality Ratio (per 100 000 live births): 2017*.
- World Health Organization. (2020). *Maternal, Newborn, Child & Adolescent Health: Indicators*.
- Zaidi, S. A., Bigdeli, M., et al. (2018). Health systems changes after decentralization: progress, challenges and dynamics in Pakistan. *BMJ Global Health*, 4(1).

Zaidi, S., Nishtar, N. (2011). Access to essential medicines: in Pakistan identifying policy research and concerns.
: http://ecommons.aku.edu/pakistan_fhs_mc_chs_chs/189