



FISCAL CONSTRAINTS AND HEALTH SYSTEM RESILIENCE IN PAKISTAN: A LONGITUDINAL ARCHIVAL ANALYSIS

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Abstract

The long time history of underinvestment in the Pakistani public health system has resulted in a health system. Health system has persistently lacked the infrastructure needed to deliver necessary services, medicines, workforce, and emergency preparedness infrastructure to support a robust national architecture of health security. This paper discussed the role of fiscal constraints in curtailing the capacity of Pakistan to develop and maintain a robust health system that can prevent and respond to health disasters based on longitudinal archival and secondary data sets dating back to 2009-2024. Results indicated that although the percentage of public health spending in Pakistan was steady between 0.9-1.4 percent of gross domestic product (GDP), it was way lower than the five percent standard set by the World Health Organization (WHO) during the years of study. The problems in structural budget composition, as 68-75% of provincial health allocations were spent on salaries, left non-salary recurrent budgets in dire need. Each of the nine International Health Regulations (IHR) core capacity areas suffered severely, with all 2016 Joint External Evaluation (JEE) scores of 125 in the range of 1-2 of disease surveillance, laboratory capacity, emergency preparedness and health workforce indicators. An analysis of COVID-19 pandemic and the 2022 floods as cases showed that these structural vulnerabilities were translated to disastrous emergency response failures. The paper used the idea of Social Security Theory and the health system resilience framework and determined that the health security deficit in Pakistan is a political economy issue that must be addressed by investing in fiscal growth, governance reform, and structural emergency preparedness at the same time.

Keywords: *Archival Analysis, COVID-19, Emergency Preparedness, Fiscal Constraints, Health System Resilience, Public Health Expenditure*

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1. Introduction

The social health system in Pakistan has a history of at least 30 years of chronic and severe underfunding of the system. The government expenditure on health has been kept at levels that are lower than the recommended five percent of GDP that WHO (2007) suggests as required to attain universal health cover and sufficient health security. These under-investments have been reported to affect all aspects of the health system, such as the infrastructure of primary care and the capacity of health workforces, the disease surveillance systems and emergency preparedness, and have been systematically captured in official reports, international health security indices and peer-reviewed publications (Global Health Security Index (GHSI), 2021; Government of Pakistan and World Health Organization, 2016; World Bank, 2025)

The health system resilience analytical framework offers a strict conceptual focus over the cumulative effects of this under-investment. Kruk et al., (2018) defined health system resilience as the ability to prepare, absorb, adapt, and recover adverse events without the core functions of service delivery, disease prevention, and population health protection. This framework classifies the resilience on three functional levels, which include absorptive capacity (the ability to meet surge demands without collapsing), adaptive capacity (adaptations of functions to changing situations), and transformative capacity (crises learning and investing in a less vulnerable future). All the dimensions demand long-term fiscal investment, and lack of sufficient investment in any of the dimensions creates cascading vulnerabilities in the other dimensions.

The theoretical explanation is based on the Social Security Theory especially those by Marshall (1950) and Esping-Andersen (1990). The model that Marshall developed held that being a true citizen of a contemporary democratic state meant not only civil rights and political rights, but also social rights- a right to a minimum standard of welfare and social security. These social rights have a constitutive aspect of health access, i.e., systematic deprivation of access to health is a fundamental breach of social contract. The concept of decommodification suggested by Esping-Andersen (1990) to measure the extent to which social services are accessible as citizenship rights regardless of the participation of the individual in the market has offered a complementary measure: a health system where 60-70 per cent. of all health spending is paid by the individual at the point of care is one of the most commodified health systems in South Asia, which is systematically den.

The article gives the results of an archival and secondary data analysis that discusses how fiscal constraints hindered the capacity of Pakistan to develop a robust health system that could prevent and respond to health crises, within the 2009-2024 period.

2. Methodology

The research design used in this study was a longitudinal archival analysis design conducted over a period of twenty years (2009 to 2024) where the year 2009 marked the

year of Eighteenth Constitutional Amendment in Pakistan which devolved the health governance roles of the federal government to provincial governments and the year 2024 was the last year to be considered in the study as it provided a fifteen years outlook of The analysis of the national-level patterns and interprovincial differences in health outcomes and resource distribution of Pakistan as the bounded case was possible using a case study framework (Yin, 2018).

The method of analysis combined the quantitative trend analysis, comparative benchmarking with regional and international counterparts, and the qualitative content analysis of policy documents and official evaluation. The study drew on eight categories of archival sources: World Bank World Development Indicators (2024); Pakistan Economic Survey annual editions (2009–10 through 2022–23); provincial health budget documents from Punjab, Sindh, Khyber Pakhtunkhwa, and Balochistan for fiscal year 2022–23; the Pakistan Demographic and Health Survey (PDHS) 2017–18 (National Institute of Population Studies & ICF, 2019); the Pakistan Joint External Evaluation of IHR core capacities (Government of Pakistan & World Health Organization, 2016); the Global Health Security Index (2021); WHO World Health Statistics (2023); and peer-reviewed academic literature on Pakistan's health financing, political economy, and health security published between 2010 and 2024.

3. Results and Discussion

3.1. Pakistan's Public Health Expenditure: Chronically Below Benchmarks

Throughout the fifteen years of study, Pakistan has continued to spend on public health as a percentage of its GDP, which has continued to be below international standards and is a critical issue. The government spending in health services according to World Bank data (2024) oscillated between around 0.9% of GDP at the beginning of the period of the study and around 1.3–1.4% at the last years, without any consistent upward trend that indicates the structural shift in the priorities of health financing. The 202021 temporary rise of about 1.5% of GDP, which was caused by the emergency spending related to the COVID-19 but not long-term health system investment, returned to pre-pandemic levels (World Bank, 2024; Pakistan Economic Survey, 2023).

This performance put Pakistan in order in the ranks of the least health spenders in South Asia and the developing world. The per capita government spending on health in Pakistan of about USD 14-20 in the course of study was dismal in comparison to the USD 64 and USD 118 of India and Sri Lanka respectively (Table 1). This financing gap that was not eliminated despite fifteen years of change of government and severe economic cycles showed that underinvestment in health was not an issue of transient fiscal pressures but structural political economy decisions.

Table 1: Comparative Public Health Expenditure – Pakistan and Regional Peers

Country	Gov. Health Exp. (% GDP) 2015	Gov. Health Exp. (% GDP) 2020	Per Capita Gov. Health Exp. (USD) ~2022	OOP as % Total Health Exp.
Pakistan	0.9%	1.1%	USD 14–20	~60–70%
Bangladesh	0.7%	0.8%	USD 27	~68%
India	1.0%	1.3%	USD 64	~47%
Sri Lanka	1.6%	1.9%	USD 118	~39%
WHO Benchmark	≥5%	≥5%	—	<20% (target)

Note. Gov. = Government. OOP = out-of-pocket. Data sourced from World Bank World Development Indicators (2024) and WHO World Health Statistics (2023). USD values are approximate and reflect purchasing power estimates.

The dimension of out-of-pocket expenditure was especially crucial to comprehend the failure of the health system to comply with the social rights obligations. The OOP contribution of about 6070 percent of total health expenditure in Pakistan ranked it as one of the highest in South Asia, which implied that most of the health financing was not taken up by the state in the form of pooled risk, but instead, it was carried out by individual households (World Bank, 2024). The concept of decommodification offered by Esping-Andersen (1990) offers the normative concept: a health system where care is based on the ability to pay is the opposite of the citizenship-based provision that Social Security Theory defines as a primary state duty.

The structural determinants of the consistently low health expenditure in Pakistan have been captured very well. Rashid et al. (2019) showed that the defence budget of Pakistan, which consumes an unproportional amount of national resources, generated a systematic crowding-out effect that restricted the fiscal space of the social sector spending, of which health is a part. This structural account was supported by the analysis of the International Monetary Fund (2023): as the debt servicing payments took more than half of federal revenues over the course of the study, the fiscal room to invest in health was further limited. The political economy analysis by Zaidi (2015) introduced an aspect of revenue: the low tax-to-GDP ratio of about nine to eleven percent in Pakistan was keeping the overall fiscal envelope of all government activities small.

3.2. Budget Composition: Structural Imbalances within Available Resources

In addition to the overall inadequacy of health spending by Pakistan, internal structure of health budgets exacerbated the financing issue with structural allocation bias. In the analysis of provincial health budget documents on fiscal year 202223, there is a

trend across the four provinces: salary spending will consume between 68 and 75 percent of the total health budget allocations and non-salary recurrent budgets will only have 15 to 20 percent of the total health resources (World Bank, 2025). Table 2 shows the provincial health budget composition.

Table 2: Provincial Health Budget Composition by Expenditure Category, Fiscal Year 2022–23 (Estimated)

Province	Total Health Budget (PKR Billion) 2022–23	Salary (%)	Non-Salary Recurrent (%)	Development (%)
Punjab	280	72%	18%	10%
Sindh	145	68%	20%	12%
Khyber Pakhtunkhwa	80	70%	19%	11%
Balochistan	35	75%	17%	8%

Note. Figures are estimates based on provincial health department budget documents 2022–23 and World Bank Pakistan Health Sector Review (2025). PKR = Pakistani rupee.

The practical implications of salary dominance were dismal. Non salary recurrent budgets included the medicines, medical supplies, facility maintenance, equipment repair and utilities which made the difference between health workers being able to offer care or not. With the salary obligation absorbing these budgets, facilities were running on chronic shortages of basic medicines, damaged or outdated equipment and low levels of consumables supplies, irrespective of whether the staff was present or absent (World Bank, 2025; Nishtar, 2010). The population-level impact was documented in the PDHS 201718, with most Pakistanis who sought curative care noting that they addressed a specific situation by going to a private provider instead of a public one, stating that they believed the public option to be inadequate as the main factor (National Institute of Population Studies and ICF, 2019).

3.3. Health Workforce: Absolute Shortages and Maldistribution

There were severe shortages in the health workforce in Pakistan in both absolute terms and geographical distribution. WHO (2023) approximated Pakistan to have about seven doctors to every 10,000 population in the country and three to every 10,000 people in Balochistan, which is significantly lower than the recommended minimum number of ten physicians per 10,000 population by WHO. The number of nurses and midwives was also very low at about five nurses and midwives per 10,000 people against the

recommended number of 23 nurses and midwives per 10,000 people that are required to provide health services at an acceptable level.

Aggregate shortages were exacerbated by spatial inequity due to the geographic maldistribution of available health workers, which reinforced the aggregates in the urban centers and abandoned rural and peripheral areas severely underserved. Bennett et al. (2012) determined this trend as one of the most enduring issues in health systems of low-income countries. Rural postings were mentioned in various policy frameworks such as the National Health Vision 2016/2025 (Ministry of National Health Services, 2016) as incentive packages, but were not allocated the following budget cycles. Also, the emigration of trained health professionals to better-paying countries was a form of systematic human capital export whose production had been subsidized by the Pakistani state but the economic benefit of which was realized in other countries (Birn et al., 2017).

3.4. Disease Surveillance and IHR Compliance: A Structural Deficit

The adherence of Pakistan to the International Health Regulations (IHR) (2005) gave the best and well-measured indicator of the difference between the undertakings and the operational capacity. The 2016 Joint External Evaluation of Pakistan evaluated nine core areas of capacity on five-point scales, a higher score of 5 would reflect full demonstrated capacity and a lower score of 1 would reflect no capacity. Table 3 shows the JEE results as well as the evaluation of the sufficiency of fiscal resources by the study.

Table 3: Pakistan's IHR Core Capacity Scores – Joint External Evaluation (2016)

IHR Core Capacity Area	JEE Score (2016) Out of 5	Primary Constraint Identified	Fiscal Resource Adequacy
National Legislation & Policy	2	Political will, institutional	Low
Coordination & Communication	2	Fiscal, institutional	Very Low
Surveillance	1	Fiscal, workforce	Very Low
Response	2	Fiscal, infrastructure	Low
Preparedness	1	Fiscal, supply chain	Very Low
Risk Communication	2	Institutional, fiscal	Low
Human Resources	2	Fiscal, training	Low
Laboratory Capacity	1	Fiscal, equipment	Very Low
Points of Entry	2	Fiscal, coordination	Low

Note. IHR = International Health Regulations. JEE = Joint External Evaluation. Source: Government of Pakistan and World Health Organization (2016). Fiscal resource adequacy assessments are the authors' classification based on JEE qualitative findings.

The JEE results revealed that health security capacities in Pakistan were significantly and consistently lacking in all the areas evaluated. The lowest scores of 1 in surveillance, preparedness, and laboratory capacity were an indication that the most basic operational requirements of health emergency detection and response were either not present, or so poorly developed that they were operationally non-functional. Since 195 countries were evaluated in the Global Health Security Index (2021), Pakistan was ranked 105th on the list, with low scores on prevention (rank 97), detecting and reporting (rank 117), and health system adequacy (rank 88), which proved that the weaknesses detected by the 2016 JEE had not been addressed systematically.

Emmanuel et al., (2012) reported the structural architecture of the Pakistan weakness of surveillance: a disjointed reporting structure where various diseases were handled by various agencies in incompatible data format, irregular reporting schedules and poor real-time national aggregation. Such discontinuity was further fueled by the post-devolution governance gap that resulted in the devolution of health duties to provincial governments without simultaneously providing the coordination infrastructure essential to surveillance that is nationally consistent (Afshar et al., 2020). The retrospective study by Gostin and Friedman (2015) on the West African Ebola outbreak developed a generalizable lesson that can be directly applied to Pakistan: IHR compliance did not involve periodic emergency mobilization but lifelong multi-year investment in trained epidemiologists, operational laboratory networks, integrated information networks, and coordinated response plans.

3.5. Interprovincial Health Outcome Disparities: The Distributional Consequences

The impact of the aggregate health underinvestment in Pakistan was not evenly distributed between provinces. The result of the allocation of population-weighted National Finance Commission (NFC) formulas and the historic unequal development of health infrastructure was dramatic interprovincial inequalities as a public health crisis and a failure of distributive justice. Table 4 shows comparative health outcome indicators of the PDHS 2017-18.

Table 4: Comparative Health Outcome Indicators by Province – Pakistan (PDHS 2017–18)

Province	Maternal Mortality (per 100,000 live births)	Under-5 Mortality (per 1,000 live births)	Immunization Coverage (%)	Skilled Birth Attendance (%)
Punjab	178	71	75%	63%
Sindh	252	93	60%	55%
Khyber Pakhtunkhwa	298	82	66%	52%
Balochistan	785	111	36%	27%
Pakistan Average	186	74	66%	53%

Note. PDHS = Pakistan Demographic and Health Survey. Data sourced from National Institute of Population Studies and ICF (2019) and Yasmeen and Shaikh (2019). Figures are estimates reflecting PDHS sampling methodology.

The statistics reported an interprovincial inequality that was not fringe but a critical divergence in the health security that citizens in various regions of Pakistan had. With an estimated maternal mortality ratio of about 785 per 100,000 live births, more than four times higher than that of Punjab at about 178, Balochistan had thousands of preventable maternal deaths per year due to systematically varying levels of government investment in maternal health infrastructure (Yasmeen & Shaikh, 2019). The immunization coverage in Balochistan of about 36% (or less than half of Punjab 75%), was also indicative of the impacts of operational budget limits, the lack of cold chain infrastructure, and health worker density (National Institute of Population Studies & ICF, 2019).

Cheema and Sayeed (2014) reported the fiscal formula that created these disparities: The NFC Award formula, which allocates resources mostly on the population size criterion, generated transfers that were systematically insufficient to meet the needs of Balochistan since the very high unit cost of service delivery in its vast and sparsely populated territory had no geographic cost-adjustment factor. The social citizenship framework offered by Marshall (1950) gives us the vocabulary of normativity: when health access is a right of equal citizenship and not a privilege of geography, then the four-fold disparity in maternal mortality between Balochistan and Punjab is a symptom of unequal citizenship- a case where the state has fulfilled its social rights obligations to its citizens in Punjab and has failed to do so.

3.6. Emergency Preparedness: COVID-19 and the 2022 Floods as Stress Tests

The COVID-19 pandemic was the best real-life assessment of the health system resilience of Pakistan at the time of the study. Jafarey et al., (2021) reported the acute shortages of resources that arose in the most active waves of the pandemic: the number of intensive care beds, estimated at about 3,000 in the country at the beginning of the pandemic, or about 1.4 per 100,000 population, were quickly overwhelmed in large cities, which put patients in critical care without the opportunity to receive mechanical PPE gaps were among the factors that led to an estimated 1,000+ health worker COVID-19-related deaths during the pandemic (Khyber Journal of Public Policy, 2024). Khyber Journal of Public Policy (2024) found that these shortages were direct results of long-term underinvestment: there had never been a policy of emergency medicine stockpile at any tier of government before the pandemic; there had never been a strategic reserve of essential medical supplies; and there had never been a pre-trained rapid-response health workforce.

It is against this background that we can pay tribute to institutional innovation in Pakistan. The formation of the National Command and Operation Centre (NCOC) offered an effective whole-of-government coordination mechanism that reported considerable successes in the acquisition of vaccines, public health messaging, and the management of lockdowns based on data (Bhutta et al., 2021). Nevertheless, the balanced evaluation by Bhutta et al., (2021) observed such successes were made amidst harsh structural deficits that existed beforehand and could be partially mitigated by exceptional coordination but was not eradicated. The pandemic also revealed the ability of Pakistan to manage the crisis and the vulnerability of the structural health system, which is typical of the system with an emerging adaptive capacity and a severely underdeveloped absorptive capacity (Kruk et al., 2018).

Pakistan floods of 2022 underwent a second high-level test. The floods resulted in flooding around a third of the Pakistani land, displaced an excess of thirty three million citizens and caused the biggest solitary humanitarian health catastrophe in the history of Pakistan (ACAPS, 2025). El-Khatib et al., (2023) reported several concurrent disease outbreaks: water sources contaminated with elevated cholera, typhoid, and acute diarrheal disease rates; malaria outbreak due to stagnant waters as breeding grounds; transmission of respiratory infections in displacement camps; and malnutrition of children in large numbers. In some of the most affected districts of Balochistan and interior Sindh government health system response capacity was practically nonexistent: facilities were literally burned down, medicine stocks were not available, and trained emergency health workers were not able to be deployed quickly (ACAPS, 2025). The government health system was replaced by international humanitarian organizations, reflecting the inability

of the state over the past decades to develop the emergency preparedness infrastructure that would allow the state to respond to the crisis in an independent manner.

3.7. Political Economy: Why Underinvestment Persists

The past history of Pakistan health financing is not just a technical narrative of inadequate budgetary allocation but a political economy narrative of structural power dynamics, institutional incentive failure, and agency flaws that continue to perpetuate underinvestment in the face of obvious evidence of the costs of such underinvestment. The macroeconomic analysis of Rashid et al., (2019) showed that the relationship between defence and health expenditures was asymmetric, and the claims of the security establishment were perceived as something fixed during the budgetary negotiation process, whereas health spending and health allocation were considered discretionary and negotiable. This structural limitation was strengthened by the fiscal evaluation provided by the IMF (2023): the conditions of stabilization programs have always safeguarded the politically potent spending groups and reduced the expenditure of the social sector.

Ali and Tariq (2017) described the inherent political weakness of health in the politics of the health budget in Pakistan in a narrowly specific way: patients who rely on state facilities, communities who lost their children to vaccine-preventable diseases, pregnant women who died because of the lack of skilled attendance had no structure of political representation that could effectively demand demands on health allocations. Khan and Shawar (2021) posited that meaningful reform meant more than a larger allocation, but a restructure of the political incentives that dictated how health competed with other much more powerful claimants on the budget. Siddique et al., (2009) found that accountability failures, lack of transparency, and failure to enforce the rule of law were systematic decliners to the returns to public expenditure on health, that is, even the resources that are allocated are often not translated into the health system benefits that they are supposed to generate.

4. Conclusion

This paper presented a systematic archival review that revealed a deep-seated and multidimensional resilience crisis due to the key issue of chronic fiscal underinvestment in Pakistan health system. Using the framework by Kruk et al., (2018), the health system was identified to be lacking in all three dimensions of resilience. Lack of sufficient resources to absorb the surge (in the form of insufficient intensive care beds, almost zero emergency medicine stocks, and acute shortages of PPE) compromised its ability to absorb the surge. It had limited adaptive capacity due to disjointed surveillance structures, insufficient laboratory diagnostic networks, and the post-devolution governance vacuum that left no institution with the national authority to coordinate health security across provinces. Its transformative potential was constrained by the political economy dynamics of defence crowding-out, IMF fiscal compression, small tax base, strong health

constituencies which replicated underinvestment among government administrations which went one after another despite obvious evidence of its outcomes.

The distributive justice dimension was added to the technical resilience analysis by the interprovincial dimension. The fourfold disparity in maternal mortality between Balochistan and Punjab, the 39-percentage-point gap in immunization coverage, and the dramatic differences in skilled birth attendance reported in the PDHS 201718 were all failures of the state most basic duty of equal citizenship. The social rights framework of Marshall (1950) gives the normative justification: in the event that health access is a constitutive aspect of citizenship and not a discretionary good, the systematic disparities between health outcomes across the provinces are indicative of unequal citizenship that cannot be reconciled with democratic pledges.

The evidence has three policy implications. To begin with, Pakistan needs a structural rise in public health spending to the WHO five percent of GDP target, which should be enacted by shielding the budget allocation to the health sector by both IMF-induced austerity compression and political influence. Jamison et al., (2013) showed that in the long run, health investments produce economic returns many times greater than their expenses due to avoided disease burden, preserved workforce productivity and cutback in emergency response spending. Second, health budgets need structural reform to reestablish allocations in the face of salary hegemony to the medicines, equipment, and operational expenditure that dictate the real quality of services. Third, the post-devolution governance gap needs to be filled with an institutional solution with permanent federal-provincial health security coordination which could maintain surveillance, emergency preparedness and IHR compliance between the crises and mobilization of extraordinary resources is only used when the crisis is acute.

The archival and secondary data used solely as the source of information in this study was a limitation and strength of the study. The greatest virtue was the longitudinal range of fifteen years of evidence systematically recorded, which made a strong explanation of structural patterns which could not be determined out of shorter series. The final conclusion of the analysis is that the lack of resilience in the health system in Pakistan is not a necessary outcome of the income level in the country. The data is clear: the performance of other countries with similar or even less per capita incomes has been significantly higher in health due to more stable political dedication to health as a social benefit that is given permanent fiscal priority. The political economy change—the change in relations of power, in accountability, and institutional incentives that is required to translate that knowledge into the fiscal and governance reality that the health and safety of citizens require—has long been wanting.

References

- ACAPS. (2025). Pakistan: Humanitarian overview. ACAPS Briefing Note. <https://www.acaps.org>
- Afshar, R., Khan, A., & Siddique, M. (2020). Health systems decentralization in Pakistan: An assessment of devolution under the 18th Amendment. *BMC Health Services Research*, 20(1), 462. <https://doi.org/10.1186/s12913-020-05332-8>
- Ali, I., & Tariq, M. (2017). Political economy of health in Pakistan: Governance, accountability and service delivery. *Journal of Political Studies*, 24(2), 357–374.
- Atun, R., de Jongh, T., Secci, F., Ohiri, K., & Adeyi, O. (2010). Health system strengthening and tuberculosis control. *BMC Medicine*, 8(10), 1–9. <https://doi.org/10.1186/1741-7015-8-10>
- Bennett, S., Hussain, A., & Martineau, T. (2012). Workforce constraints and health system performance in low-income countries. *Human Resources for Health*, 10(1), 29–38. <https://doi.org/10.1186/1478-4491-10-29>
- Bhutta, Z. A., Siddiqi, S., Hafeez, A., Hyder, A. A., Bhatti, Z., Rashidian, A., & Zaidi, S. A. (2021). Pakistan's response to COVID-19: Successes and challenges. *The Lancet*, 398(10299), 489–492. [https://doi.org/10.1016/S0140-6736\(21\)01574-7](https://doi.org/10.1016/S0140-6736(21)01574-7)
- Birn, A. E., Pillay, Y., & Holtz, T. H. (2017). *Textbook of global health* (4th ed.). Oxford University Press.
- Cheema, A., & Sayeed, A. (2014). Fiscal federalism and health service delivery in Pakistan: The post-devolution experience. *Lahore Journal of Economics*, 19(Special Edition), 187–214.
- El-Khatib, Z., Hatem, G., Kobeissi, L., & Al-Taher, S. (2023). Health consequences of the 2022 Pakistan floods and implications for disaster risk reduction. *International Journal of Environmental Research and Public Health*, 20(4), 3225. <https://doi.org/10.3390/ijerph20043225>
- Emmanuel, F., Fatima, F., & Chand, S. (2012). Infectious disease surveillance in Pakistan: Current situation and prospects. *Eastern Mediterranean Health Journal*, 18(6), 648–654.
- Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Princeton University Press.
- Global Health Security Index. (2021). *GHS Index 2021: Advancing collective action and accountability*. Nuclear Threat Initiative.
- Gostin, L. O., & Friedman, E. A. (2015). A retrospective and prospective analysis of the West African Ebola virus disease epidemic. *The Lancet*, 385(9984), 2252–2261. [https://doi.org/10.1016/S0140-6736\(15\)60644-4](https://doi.org/10.1016/S0140-6736(15)60644-4)
- Government of Pakistan & World Health Organization. (2016). *Pakistan joint external evaluation of IHR core capacities: Mission report*. WHO.

- International Monetary Fund. (2023). Pakistan: Staff report for the 2023 Article IV consultation (IMF Country Report No. 23/310). <https://www.imf.org>
- Jafarey, A., Niaz, S. K., & Pasha, M. F. (2021). Pakistan and COVID-19: Response, challenges, and the way forward. *Journal of the Pakistan Medical Association*, 71(1), 288–291.
- Jamison, D. T., Summers, L. H., Alleyne, G., Arrow, K. J., Berkley, S., Binagwaho, A., Bustreo, F., Evans, D., Feachem, R., Frenk, J., Ghosh, G., Goldie, S. J., Guo, Y., & Yamey, G. (2013). Global Health 2035: A world converging within a generation. *The Lancet*, 382(9908), 1898–1955. [https://doi.org/10.1016/S0140-6736\(13\)62105-4](https://doi.org/10.1016/S0140-6736(13)62105-4)
- Khan, M. M., & Shawar, Y. R. (2021). Health financing reforms in Pakistan: What does the political economy tell us? *BMC Health Services Research*, 21, 1–15. <https://doi.org/10.1186/s12913-021-06202-1>
- Khyber Journal of Public Policy. (2024). Health security in Pakistan: Challenges and prospects. *Khyber Journal of Public Policy*, 3(2), 45–68.
- Kruk, M. E., Ling, E. J., Bitton, A., Cammett, M., Cavanaugh, K., Chopra, M., El-Jardali, F., George, A. S., Herbst, C. H., Hirschhorn, L. R., Hounsell, E., & Gea-Banacloche, J. (2018). Resilient health systems: A framework for responding to unexpected events. *The Lancet*, 391(10125), 2407–2418. [https://doi.org/10.1016/S0140-6736\(18\)30737-X](https://doi.org/10.1016/S0140-6736(18)30737-X)
- Marshall, T. H. (1950). *Citizenship and social class*. Cambridge University Press.
- Ministry of National Health Services. (2016). *National health vision Pakistan 2016–2025*. Government of Pakistan.
- National Institute of Population Studies & ICF. (2019). *Pakistan demographic and health survey 2017–18*. NIPS and ICF.
- Nishtar, S. (2010). The gateway paper: Health policy in Pakistan. *Journal of Health Policy and Planning*, 25(Supplement 1), i47–i60. <https://doi.org/10.1093/heapol/czq069>
- Nishtar, S., Bhutta, Z. A., Jafar, T. H., Ghaffar, A., Akhtar, T., Bengali, K., & Chotani, R. A. (2013). Health reform in Pakistan: A call to action. *The Lancet*, 381(9884), 2291–2297. [https://doi.org/10.1016/S0140-6736\(13\)61187-7](https://doi.org/10.1016/S0140-6736(13)61187-7)
- Organisation for Economic Co-operation and Development. (2022). *Health at a glance: Asia/Pacific 2022*. OECD Publishing. <https://doi.org/10.1787/ece5f439-en>
- Pakistan Economic Survey. (2023). *Pakistan economic survey 2022–23*. Ministry of Finance, Government of Pakistan.
- Rashid, T., Zafar, I., & Akhtar, F. (2019). Military spending, health expenditure, and development in Pakistan: A macroeconomic analysis. *Defence and Peace Economics*, 30(5), 567–583. <https://doi.org/10.1080/10242694.2017.1410900>
- Rawls, J. (1999). *A theory of justice* (Rev. ed.). Harvard University Press.

- Siddiqi, S., Masud, T. I., Nishtar, S., Peters, D. H., Sabri, B., Bile, K. M., & Jama, M. A. (2009). Framework for assessing governance of the health system in developing countries: Gateway to good governance. *Health Policy*, 90(1), 13–25. <https://doi.org/10.1016/j.healthpol.2008.08.005>
- World Bank. (2024). Health expenditure, public (% of GDP) — Pakistan [Data set]. World Development Indicators. <https://data.worldbank.org>
- World Bank. (2025). Pakistan health sector review. World Bank Group.
- World Health Organization. (2007). Everybody's business: Strengthening health systems to improve health outcomes — WHO's framework for action. WHO.
- World Health Organization. (2023). World health statistics 2023: Monitoring health for the SDGs. WHO.
- Yasmeen, G., & Shaikh, H. (2019). Regional disparities in health outcomes in Pakistan: Evidence from the PDHS. *Pakistan Development Review*, 58(4), 701–718.
- Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). SAGE Publications.
- Zaidi, S. A. (2015). Issues in Pakistan's economy: A political economy perspective. Oxford University Press.