

Decentralisation's Effects on Health: Theory and Evidence from Balochistan, Pakistan

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The paper investigated the impact of decentralisation on health outcomes in Balochistan. It looked at how decentralisation has been [in]effective in improving (worsening) the overall healthcare services in the province. The impact of decentralisation was seen through the National Finance Commission's (NFC) 7th NFC Award and the 18th Amendment to the Constitution. Both initiatives provide fiscal and administrative decentralisation to the provinces in Pakistan. Healthcare service in Pakistan is a provincial subject and any step that helps to improve the capacity of the provinces should supposedly translate into better services of healthcare. After the 7th NFC Award and the 18th Amendment, Balochistan has gained bigger fiscal space and provincial autonomy to improve social services including health. The study used a time series dataset from 1975 to 2020 from federal/provincial/district sources to provide micro-level evidence of static (or otherwise) outcomes in health corresponding to decentralisation. The paper compared the public health provision by provincial/subnational government with a centralised government to assess which tier is more effective (or otherwise) in health care provision considering various institutional types in both decentralised and centralised regimes. The findings show that decentralisation did not improve health outcomes such as life expectancy, infant mortality rate, and child immunisation. Instead, it caused an increase in infant mortality in Balochistan. The paper concludes that health outcomes have not improved in post decentralisation despite bigger fiscal space and provincial autonomy. Thus, the province has not been able to increase healthcare services with qualitatively better outcomes.

JEL Classification: H77, H75, H7

Keywords: Decentralisation, 7th NFC Award, 18th Amendment, Healthcare Outcomes, Balochistan.

1. INTRODUCTION

Decentralisation is one of the most widespread policy reforms in the world. It is being pursued or has recently been implemented in many countries across all political systems and income levels. The World Bank estimated that decentralisation was being pursued in 80 to 100 percent of the world (World Bank, 2012). The interest in decentralisation has further grown recently, with new or deepening reforms announced in countries such as Bolivia, Pakistan, Turkey, France, Japan, Kenya, Cambodia, and India, to name a few (Faguet and Pöschl, 2015; Hooghe and Marks, 2016; Rodden, 2006;

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Ahmed and Baloch, 2019). The scholarly response to the decentralisation debate has similarly been vast, with hundreds of articles published on decentralisation and its different aspects. For reasons such as data and funding availability and policy interest, most of these studies focus more on the high-income OECD countries. However, most of the world's approximately 190 countries, and hence most of the world's decentralisation, lie outside this thirty-six-country OECD club. Therefore, more research needs to be done focusing on developing countries where decentralisation is adopted as a reform policy.

Decentralisation can broadly be defined as the shifting of obligations, authority, and resources from the centre (federal) to regions/provinces to enable the latter in policy-making, and financial and administrative planning for better service delivery (Schultz, 2004). Decentralisation has different forms, such as administrative, political, and fiscal, and each kind of decentralisation has different features, policy repercussions, and preconditions for success. The proponents of decentralisation argue that it can foster good governance, help improve the lives of common people by bringing decision-making processes closer to the people, and enhance coverage and scope, and the quality of service delivery. Recent literature (see, for example, Faguet and Pöschl, 2015; Hooghe and Marks, 2016) on decentralisation indicates that over the past decade, emphasis has shifted away from the analysis of the impacts of decentralisation on macroeconomic indicators towards investigating its human face, i.e., its impact on the social indicators, especially health, education, and other basic local services.

In the decentralisation literature, Pakistan is notably underrepresented. This paper, therefore, is an attempt to provide some insights into decentralisation as a policy reform in Pakistan. Notably, observing the impact of decentralisation on healthcare and establishing a direct or indirect link (either positive or negative) has been and remains a challenge for both public and social scientists. The paper seeks to add to knowledge about decentralisation by exploring its effects on health in Balochistan, the largest province of Pakistan. In line with modern research, the paper examines and analyses the effects of decentralisation on health in Balochistan in light of the 7th NFC Award and the 18th Amendment to the Constitution of Pakistan, implemented in 2010.

According to the 1973 Constitution of Pakistan, and further to its 18th Amendment in 2010, health primarily has become a provincial subject. However, planning, finance, and administration of health were partially conducted by the federation in parallel to the provinces. The federal health department used to set the overall policy planning, coordination, and standard for primary and tertiary healthcare before the 18th Amendment (Khan and Mirza, 2011).

It has been more than a decade since both these initiatives for decentralisation were taken, so it is imperative to assess how decentralisation initiatives have affected the health sector, which is an important social sector with a significant impact on social and economic development. To the best of our knowledge, this relationship has not been empirically examined within a robust theoretical context. Thus, we examine whether access to healthcare facilities and their quality has improved after decentralisation in Balochistan.

The paper contributes to the relevant literature by building a theoretical framework, compiling a novel dataset, and highlighting possible policy issues related to devolution and the health sector.

Politically, Balochistan, in many ways, has been at the forefront of the decentralisation campaign, and much of the argument for this came in the backdrop of the underdeveloped socioeconomic landscape in the province. Lack of resources and autonomy in Balochistan are cited as key causes for this underdevelopment. The social sector in Balochistan has historically been poor with weak healthcare indicators. However, the issues of autonomy and resource availability have been addressed to a certain extent, if not fully, through the 7th NFC Award and 18th Amendment initiatives.

Therefore, it is pertinent to examine how and to what extent the province has been successful in addressing its healthcare services. The overarching question of the paper, therefore, is the extent to which decentralisation has affected healthcare services in Balochistan. The question is tested using the following hypothesis: Decentralisation, owing to the 7th NFC Award and 18th Amendment, leads to more expenditure/investment on health in Balochistan, which translates into better healthcare-related facilities and outcomes.

The rest of the paper is organised as follows. Section 2 presents a review of the existing literature. Sections 3 and 4 discuss the status of health and decentralisation in Balochistan. Section 5 presents a theoretical framework, and Section 6 explains methodology, data, and variables. Section 7 shows and discusses the descriptive statistics, Section 8 discusses the results, and Section 9 concludes with policy recommendations.

2. LITERATURE REVIEW

2.1. Decentralisation

Upto 1945, Australia, Canada, Switzerland, and the USA were the only functioning federal countries in the world, whereas as recently as 2015 some 20 to 30 countries with 40 percent of the world's population are federal (Anderson, 2015). Ninety-five percent of democratic countries have elected regional or local governments with different levels of fiscal, administrative, and political decentralisation (World Bank, 2018). Subnational governments in some countries (the USA, Canada, Switzerland, Pakistan, and India) are more autonomous, while in many other countries (Thailand, Spain, Indonesia, and Chile) subnational governments have restricted autonomy (Hooghe and Marks, 2016). Several developing countries have adopted decentralisation as a policy strategy to resolve many compelling political and fiscal problems, and to improve the social and economic service delivery (Bird, 1993).

The question that arises is, what is decentralisation. It is hard to give a precise definition of decentralisation. Fesler (1965) considers that decentralisation is rich with conceptual and empirical significance that reflects the dynamic political and fiscal realities, and incremental changes in society. Scholars believe that the problems related to decentralisation are purely conceptual, and ironically in many developing countries it is proposed and implemented without comprehending its true meaning (Fantini & Gittel, 1973; Rondinelli, 1981). Decentralisation is used in different contexts with distinctions among fiscal, political, and administrative decentralisation (Martinez-Vazquez, 1998; Litvak & Seddon, 1999).

Fiscal decentralisation is broadly defined as the transfer of fiscal decision-making and the authority of planning and management of public functions from the central government (first tier) to subnational governments (regional/provincial/local) (Bahl,

2006). The advocates of fiscal decentralisation assert that because of the absence of a significant spillover effect, the provision of public goods and services by subnational governments increases efficiency (Oates, 1968, 1972; Ostrom, et al. 1993; Qian & Weingast, 1997), which ensures national unity (Litvack, et al., 1998).

2.2. The Process of Decentralisation in Pakistan

Like many countries, in Pakistan, besides other political motives, decentralisation is adopted mainly to empower the provinces and enable them to deliver better social services and improve governance. Decentralisation in Pakistan has empowered the provinces in terms of finance and administrative controls. Decentralisation in many ways can enhance the harmony among the provinces in Pakistan and can promote coordination between them and the local governments (the third tier), which can help strengthen the overall federal structure.

Pakistan has historically been a centralist federation with a centralised system of taxation, in which the federal government collects most of the tax and non-tax revenues and distributes them vertically—between the centre and the provinces—and horizontally – among the provinces—based on the criteria of population, poverty, revenue generation, and inverse population density. Revenue centralisation and expenditure decentralisation in Pakistan make public finances extremely imbalanced, in which the federal government dominates revenue collection in comparison to conducting the public sector expenditures. Having this mismatch, intergovernmental transfers have become an imperative tool in meeting the resource requirements of subnational governments. The intergovernmental resource transfer, a significant feature of provincial governments' finances in Pakistan, takes place under the fiscal arrangement of the NFC Award. As mandated by the Constitution, after every five years an NFC Award is constituted to prescribe a formula-based vertical and horizontal distribution of both tax and non-tax revenues.

Table 1 shows the share of the provinces in various resource-sharing awards.

In the 7th Award, the smaller provinces (in terms of population) of Pakistan insisted on the inclusion of indicators such as poverty, backwardness, inverse population density, and poor collection of infrastructure tax on services in distribution criteria for horizontal distribution (see Table 2).

Table 2

Distribution Criteria for the 7th NFC Award (Share in Percentage)

Indicators	Poverty/		Revenue Generation	Inverse Population Density	Grants for Compensation on Account of OZ&T*	Grant for War on Terror**	Share based on the previous award	7th NFC Award
	Pop.	Backward						
Weight	82	10.3	5	2.7			100	100
Punjab	57.37	23.16	44	4.34			53.01	51.74
Sindh	23.71	23.41	50	7.21	0.66		24.94	24.55
KP	13.82	27.82	5	6.54		1.8	14.88	14.62
Balochistan	5.11	25.61	1	81.92			7.17	9.09

Source: NFC document (2010) and Nabi and Sheikh (2011).

* Grant-in-Aid to Sindh province is equivalent to 0.66 percent of the net Provincial Divisible Pool and is given as compensation for losses on account of the abolition of OZ&T.** The grant for the war on terror is 1 percent of the total divisible pool, which is equivalent to 1.8 percent of the provincial share in the net proceeds of the Provincial Divisible Pool.

On 10th March 2010, the 7th NFC was announced with the consensus of all stakeholders, which may rightly be considered a quantum jump towards decentralisation of fiscal resources to provinces. The Award introduced some fundamental shifts in both horizontal and vertical distributions:

- The Award increases the share of the provinces in the divisible pool to 56 percent in the first year, effective from July 01 2010, and 57.5 percent in the remaining 4 years of the award. In addition, the collection charges by the federal government, which hitherto had been 5 percent, have been reduced to 1 percent. The federal government also relinquished the sales tax on services under federal excise duties to the provinces (Nabi & Sheikh, 2011).
- Besides population, poverty, backwardness, resource mobilisation, and inverse population density are used as criteria for the distribution of the divisible pool among the provinces (see Table 2). Though population remains the major criterion with 82 percent weight, poverty/backwardness, revenue mobilisation, and inverse population density have 10.3 percent, 5 percent, and 2.7 percent weights, respectively, which has increased the share of provinces in vertical distribution.
- To compensate the provinces with extraordinary financial difficulties, special considerations have been made in the Award. It is agreed upon that each province would receive 50 percent of the net proceeds of total royalty from crude oil. In addition to this, Balochistan is set to receive Rs. 120 billion under the head of the Gas Development Surcharge, which the federation owed to Balochistan, in 12 years installments. Likewise, KP would get Rs. 110 billion in the head of hydel profit in 5 years (Pakistan, 2010).

The bottom line of the 7th NFC Award is that it recognised the federal spirit of Pakistan and conceded the fact that without greater decentralisation provinces would desperately fail in providing social services for which they have constitutional obligations.

2.3. The 18th Amendment to the Constitution

The 18th Amendment to the Constitution of Pakistan passed in April 2010 was a historic amendment that sought to decentralise power in important ways. It devolved several key functions to the provinces by abolishing the Concurrent Legislative List in the Constitution and amending the Federal Legislative List. The decentralisation of responsibility and authority provided the context in which various institutional actors renegotiated their roles in a contested space. In light of the 18th Amendment, the provinces further amended their laws, established new institutional frameworks, developed policies and strategies, and built the capacity to effectively discharge their newly acquired responsibilities.

The Concurrent List was abolished. The subjects such as health and education were devolved to the provinces. This represents the extended sphere of provincial autonomy. For provinces, it meant two things. First, they were now required to legislate on these subjects, even if this amounted to changing the federal legislation *mutatis mutandis*. After the Amendment, the provinces can frame their laws, rules, and policies on a plethora of subjects, including health.

The key structural changes brought about by the 18th Amendment are in line with the nature of decentralisation in Pakistan. Articles 141 to 159 of the Constitution delineate the relationship between the federation and the provinces. In this relationship, the difference is that the Concurrent List, comprising subjects on which both the national and provincial assemblies could legislate, has been largely done away with. The 18th Amendment has, therefore, created not only the necessary constitutional framework and administrative responsibilities, but it has also provided a much bigger fiscal space for the provinces to perform all devolved functions.

2.4. Decentralisation and Health

Decentralisation of the health sector was implemented in many states as a subsection of extensive health reorganisations or as a priority management policy (Rico & Leon, 2005; Saltman, 2007). The aim and logic of this policy initiative differ widely from country to country, but in the overall extensive process of health decentralisation, the provision of better health services invariably is the key purpose (Saltman, et al. 2007; Costa-Font & Greer, 2013). Health decentralisation literature vigorously advocates decentralisation as an effective reform policy for the delivery of public goods, including healthcare amenities (Robalino & Voetberg, 2001; Asfaw, et al. 2007).

A key purpose of adopting health decentralisation is to make the health provision more inclusive because, in a centralised health system, those who are at the margins are invariably left out (Magnussen, et al. 2007). A review study conducted by Saltman, et al. (2016) on decentralisation and health equity concludes that decentralisation creates greater local autonomy among regions but generates disparities among them in terms of healthcare. On the other hand, Regmi, et al. (2010) argue that the decentralisation of the health sector is important because it aids in providing health services according to the needs of the local people and improves accessibility.

Schwartz, et al. (2002), using a panel of middle-income countries, showed that local public health expenditures had increased after decentralisation, though over time the subnational governments decreased the share of revenue allocated for public health. Based on evidence from 166 countries, Treisman (2002) pointed out that the impact of decentralisation on the percentages of new-born immunised against diphtheria, tetanus, and pertussis and accessibility to medicines depended largely on the income level of those countries. Asfaw, et al. (2007) showed that decentralisation had increased the infant mortality rate in India. Khaleghian (2003) showed that from 1980 to 1997 in 140 countries and provinces/states, the impact of decentralisation on vaccination coverage of one-year-old children fell under the category of “below average” to “average”.

Meher and Samina (2018) and Aftab (2019) examined the impact of decentralisation on health in Pakistan. They found that decentralisation had improved the delivery of health services.

3. THE STATUS OF HEALTH IN BALOCHISTAN

In Balochistan, the structure for the provision of basic health services is either nonexistent or very poor. For example, out of 10,000 pregnant women, about 785 women experience pregnancy-related complications which have adverse consequences for overall family lives and their earning capabilities. The proportion of mortality is grotesquely high

at 600 for each 10,000. Similarly, the newborn child mortality of 128 out of 1,000 shows the quality and quantity of the maternity staff, problems with well-being administration, underage marriages, and other well-being issues (Health Facility Assessment, Balochistan Provincial Report, 2020). Most of the population in the province (more than 70 percent) lives in far-flung areas that have an urgent need for maternity specialists and well-being administration (MICS, Govt. of Balochistan, 2018).

In Balochistan, during the past 10 years, one million children have died before reaching the age of five. The maternal mortality rate (MMR) is alarmingly high at 785 per 100,000 live births, while the infant mortality rate (IMR) is 97 per 1000 live births. These health-related outcomes are the worst in Balochistan compared to other provinces. Similarly, birth by skilled birth attendants is 18 percent, birth offices are 16 percent, and completely inoculated kids are a mere 16 percent. The physical infrastructure of the health sector is virtually dysfunctional in rural areas, whereas it is in bad condition in towns and urban centres (Government of Balochistan, 2020).

In terms of health facilities and the provision of basic health services, the primary healthcare system, such as where the Basic Health Units (BHUs) and Rural Health Centres (RHCs), plays a critical role. In Balochistan, there are 909 BHUs, 103 RHCs, 82 Maternal Child Care Centres (MCHs), and 575 Civil Dispensaries (CDs) officially registered (PPHI, 2021). Although the physical infrastructure has increased over time, these BHUs, RHCs, and MCHs are either closed or dysfunctional. This is partly because of the non-supply of medicines and other equipment by provincial and district health departments.

4. DECENTRALISATION IN BALOCHISTAN

The trend of decentralisation, particularly fiscal decentralisation, had increased before the 7th NFC Award and the 18th Amendment, as we showed above. However, after both reforms in 2010, significant decentralisation took place in all provinces in general and Balochistan in particular. As shown in Table 7 (also see Ahmed and Baloch, 2014), the horizontal distribution for Balochistan has increased from approximately 5.3 percent to 9.09 percent, as more criteria for horizontal distribution along with population, which hitherto had been the sole criterion (Table 7).

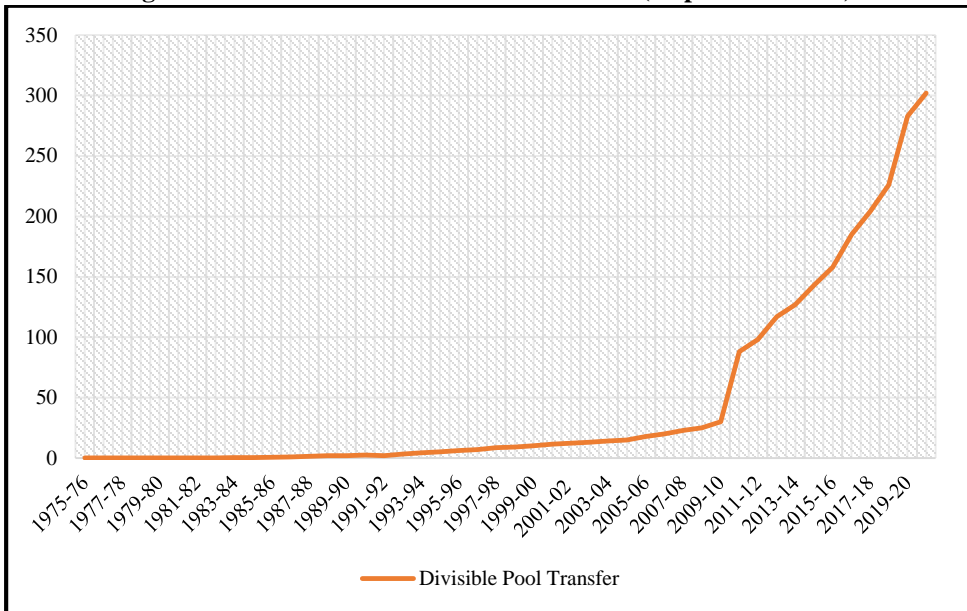
Table 7

Summary of the Provincial Share in the NFC Award — 1974 to 2010 (%)

NFC Awards	Punjab	Sindh	KPK	Balochistan
NFC Award 1974	60.25	22.5	13.39	3.86
NFC Award 1979	57.97	23.34	13.39	5.3
NFC Award 1885	57.97	23.34	13.39	5.3
NFC Award 1990	57.88	23.28	13.54	5.3
NFC Award 1996	57.88	23.28	13.54	5.3
NFC Award 2000	57.88	23.28	13.54	5.3
7 th NFC Award 2010	51.74	24.55	14.62	9.09

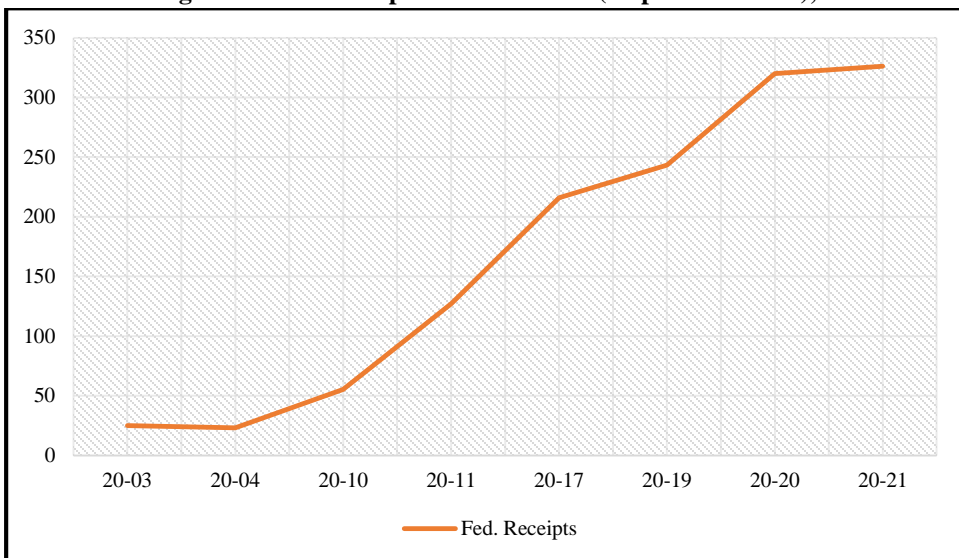
Source: National Finance Commission Report, 2010.

As Figure 1 shows, expenditures have been significantly decentralised post-7th NFC award and the 18th Amendment.

Fig. 1. Divisible Pool Transfer in Balochistan (Rupees in Billion)

Source: Budget Documents, Ministry of Finance, Government of Balochistan.

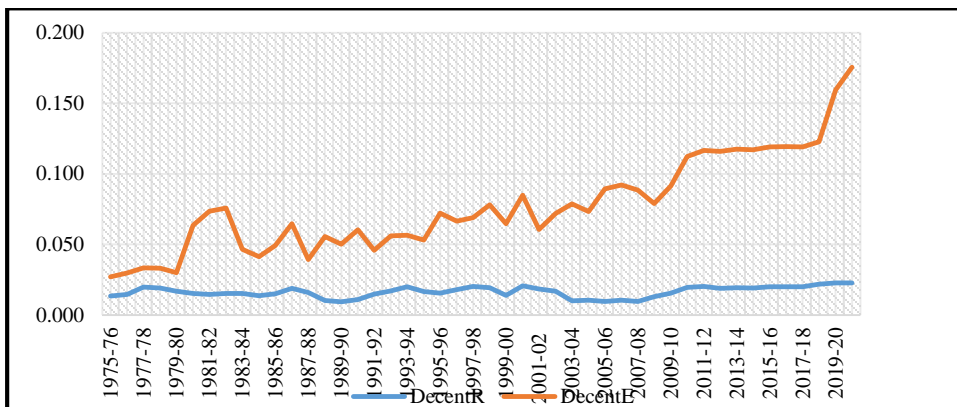
As Figure 2 shows, a steep rise in all federal receipts, both the divisible pool and straight transfers, after 2010 is a typical manifestation of decentralisation in Balochistan.

Fig. 2. Federal Receipts to Balochistan (Rupees in Billion),

Source: Budget Documents, Ministry of Finance, Government of Balochistan.

As shown in Figure 3, expenditure decentralisation in Balochistan has substantially increased, post-2010, displaying a somewhat steep and consistent rise.

Fig. 3. Overall Trend of Expenditure and Revenue Decentralisation in Balochistan—1975 to 2020



Source: Federal and Provincial Budget Documents (various Years; Statistical Yearbook, State Bank of Pakistan (2010); Economic Survey of Pakistan (Various Issues).

5. THE THEORETICAL FRAMEWORK

This section builds a model and theoretical framework to assess how widespread better quality public health can be provided in a decentralised setup considering various institutional arrangements. Bardhan and Mookherjee (2005; Besley and Coate (2003); Faguet (2002,2004); and Lockwood’s (2006) existing work provides a benchmark to develop the theoretical framework.

Prima facie, in a federal structure, decentralisation reform is adopted to improve service delivery given the proximity of the subnational governments to the local people and assuming that the local governments are more responsive to the needs of the local people. For the present study, a model is constructed in which the proximity/ responsiveness advantage of the decentralisation is compared to the federal government’s efficiency parameter, dubbed as ‘technological advantage’ for the provision of health services.

For simplicity, two regimes are considered, i.e., a centralised regime (C) and a decentralised regime (D). In the centralised regime, there is only the central government, without any provincial or subnational governments. In the decentralised regime, there is a central government and k provinces in which each province governs its respective jurisdiction. It is assumed that every province has two types of inhabitants, namely, poor and rich (or non-poor), and the inhabitants are immobile. In other words, local inhabitants may not fully migrate from one province/locality to another.

The inhabitant of a locality consumes two baskets: public goods (G) and private goods (N).

$$L = f(G, N) \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (1)$$

Where L is the living condition or the standard of living of the citizen. To maintain L, G, and N amount of goods and services is required. The public goods basket, G, also contains public health provision, H. Thus, G is the function of H and X, where X is the set of public goods/services other than H.

$$G = g(H, X) \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (2)$$

It is further proposed that all basic social services are included in the public goods basket. The basket of private goods, N, is the function of non-necessary/non-basic goods/services, which is denoted by Z.

$$N = n(Z) \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (3)$$

Furthermore, the first- and second-order conditions of the argument in Equation (1) are:

$$L_G > 0 \text{ and } L_{GG} \leq 0 \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (4)$$

Likewise,

$$L_N > 0 \text{ and } L_{NN} \leq 0 \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (5)$$

The argument is that when the provision of public goods basket, G, improves, the living conditions of the individual also improve at a decreasing rate (as shown in Equation 4). The same argument is true for the private goods basket, N, in Equation (5).

In addition, it is assumed that the provinces have the perfect knowledge of the people’s basic needs for public goods and services characterised as the “Basic Need” parameter, denoted by $\lambda > 0$. This factor gives information to policymakers on the amount of H and Z required to ensure basic social services. Since the decentralised regimes/provinces are closer to the population, and the proximity condition holds, the decentralised setup has an advantage in terms of the local basic need parameter λ . On the contrary, the centralised regime has a disadvantage in terms of the parameter λ given its remoteness from the population and, therefore, the lack of knowledge about their basic needs. Putting Equation (3), Equation (4), and Equation (5) together given the above arguments, the following valuation function can be derived:

$$L = f[\lambda G(H), N(Z)] \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (6)$$

Public and private goods are on the horizontal axis, while the living standard is on the vertical axis. The figure shows that with an increasing amount of public and private goods, H and Z, respectively, the living standard also increases but at a decreasing rate

The total and marginal utility from G is increasing in λ because of the assumption that the provinces are better situated in realising the “basic needs” than the federation. The estimation of the ability of the federation to people with basic needs may be overestimated or otherwise (Bardhan and Mookherjee, 2005).

5.1. The Budget Constraint

Besley and Coate (2003), Basely and Smart (2003), and Lockwood (2006) use the term representative government, which represents the median voters. Corresponding to the people’s needs, the representative government is highly likely to provide better H and Z. The representatives are elected through a majority vote, so to ensure reelection they try to satisfy the people by meeting their basic social needs, such as health and education.

It is further assumed that both centralised or decentralised regimes have balanced budgets with revenue, R, and expenditure, E. That is:

This implies that revenues = expenditures or total taxes = total expenditure.

$$\tau^i = w(N + G + Z) \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (7)$$

In Equation (7), τ^i is the total tax for all i , where $i = 1, 2, \dots, n$

As noted earlier, there is only one representative government in the centralist regime that decides how much health services H within the basket of public goods, G^A , should be provided. The efficiency or cost-effectiveness of centralisation in production and provision of G is captured by the parameter γ .

Reproducing Equation (6) and inserting superscripts i and j , the equation becomes:

$$L = f[\lambda^i G(H^j), N(Z^j)] \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (8)$$

Where $J = D$ (decentralised regime), and C (centralised regime).

The private consumption, C^i , of an individual i is the function of the total number of hours worked, w , minus the amount of taxes τ^i which they must pay.

$$C^i = V(wL^i - \tau^i) \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (9)$$

Applying the Lagrange and combining Equations (7), (8), and (9), the objective function becomes:

$$\mathcal{L} = \left\{ \sum_{i=1}^n \left(\sum_{i=0}^n f[\lambda^i G(H), N(Z)] + V(WL^i - \tau^i) \right) + \theta \left(\sum_{i=1}^n \tau^i - WH - WZ \right) \right\} \quad (10)$$

$$\frac{\partial L}{\partial H} = f_G G_P - \theta W = 0 \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (11)$$

$$\frac{\partial L}{\partial Z} = f_N N_Z - \theta W = 0 \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (12)$$

Equating Equations (11) and (12), the following equation is arrived at:

$$\Rightarrow f_G G_H = f_N N_Z = \theta W \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (13)$$

$$\frac{\partial L}{\partial \tau} = -V_{\tau} + \gamma \theta = 0 \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (14)$$

$$\theta = \frac{V_{\tau}}{1} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (15)$$

Combining Equations (11), (12), and (14), and simplifying:

$$\frac{V_{\tau} W}{1} = f_G G_P = f_N N_Z \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (16)$$

According to Equation (16), the proportional tax rate, τ^i , on W is equal to the marginal benefit which is extracted from the public goods basket, G , which includes H . In other words, the marginal benefit from goods and services provided by the state is equal to the marginal cost.

Furthermore, we assume that the function f is equal to:

$$f = A \lambda^i G^{\alpha} N^{\beta} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (17)$$

In Equation (17), A is a constant, and α and β are the marginal utilities that citizens derive from consuming both baskets G and N , respectively.

$$f_G = \alpha \lambda^i G^{\alpha-1} N^{\beta} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (18)$$

$$f_G = \alpha \frac{f}{G} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (19)$$

$$f_N = \frac{f}{N} (\beta) \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (20)$$

Furthermore, we assume that:

$$C = \ln(WL - \tau^i) \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (21)$$

Since it was earlier noted that $\theta = V_t$, substituting (21) for V, Equation (15) becomes:

$$\theta = \frac{V_\tau}{\gamma} = \frac{-1}{WL - \tau} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (22)$$

$$\theta WL - \theta \tau = -1 \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (23)$$

$$\tau^i = \frac{1 + \theta WL}{\theta} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (24)$$

Thus, τ^i amount of tax is needed per head to finance the provincial public goods and services in either type of government.

Combining Equations (11), (12), and (21):

$$-\frac{W}{\gamma(WL - \tau^i)} = \frac{f}{G^\alpha} * \frac{\partial G^\alpha}{\partial H} = \frac{f}{N^\beta} * \frac{\partial N^\beta}{\partial Z} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (25)$$

Equation (25) depicts the trade-off between a basket of private goods, N, and a basket of public goods/social services, G, that citizens get from a given level of the tax rate, (τ^i , which they must pay as a proportion of the wage rate (W).

Equation (25) further leads to Equations (26) and (27):

$$\alpha \frac{f}{N} \frac{\partial G}{\partial H} = -\frac{W}{W - \tau} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (26)$$

$$\beta \frac{f}{N} \frac{\partial N}{\partial Z} = -\frac{W}{W - \tau} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (27)$$

Assuming that:

$$\mathbf{G} = H^\gamma \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (28)$$

$$\mathbf{N} = Z^\gamma \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (29)$$

Combining Equations (26) and (27):

$$\alpha \frac{f}{G} \frac{\partial G}{\partial H} = \beta \frac{f}{N} \frac{\partial N}{\partial Z} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (30)$$

Extracting common factor f from both sides and using Equation (28) and Equation (29):

$$\frac{\alpha}{h^\gamma} \gamma H^{\gamma-1} = \frac{\beta}{H^\gamma} \gamma H^{\gamma-1} \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (31)$$

$$H = \frac{\alpha}{\beta} Z \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (32)$$

Using Equation (28) and Equation (29) to substitute G and N in Equation (22):

$$\alpha \frac{f}{G} \frac{\partial G}{\partial H} = \alpha \lambda^i G^{\alpha-1} \gamma H^{\gamma-1} (Z^\gamma)^\beta \text{ yields } \Rightarrow \alpha \lambda^i \gamma H^{\gamma(\alpha-1)} Z^{\beta\gamma} \quad \dots \quad (33)$$

Since $H = \frac{\alpha}{\beta} Z$, Equation (33) becomes:

$$\alpha \frac{f}{G} \frac{\partial G}{\partial H} = \alpha A \lambda^i \gamma \left(\frac{\alpha}{1-\alpha} \right)^{\gamma(\alpha-1)} Z^{\gamma-1} = \frac{1}{\tau-1} \dots \dots \dots (33')$$

After having the interior solution of the above equation, Z can be written as:

$$Z = 1 / ((\alpha A \lambda^i \gamma (\alpha / (1 - \alpha))^{\gamma(\alpha - 1)} ((1 + \phi WL - \phi) / \phi)^{1 / (\gamma - 1)}) \dots (34)$$

Substituting (34) for Z, Equation (33) becomes:

$$H = (\alpha / \beta) / ((\alpha A \lambda^i \gamma (\alpha / (1 - \alpha))^{\gamma(\alpha - 1)} ((1 + \phi WL - \phi) / \phi)^{1 / (\gamma - 1)}) (32')$$

The health services provision H by the provinces is a trade-off between the “proximity advantage factor” γ and the federation’s “cost-effectiveness” parameter γ .

Assuming assume that marginal utilities of both public and private goods are the same, i.e., $\alpha = \beta$, and if this condition holds, then Equations (34) and (32') are equal, i.e., $H = Z$.

Taking the first differential of the above equation with respect to λ and γ :

$$\frac{\partial H}{\partial \lambda} = H \frac{-1}{\gamma-1} \frac{1}{\lambda} \dots \dots \dots (35)$$

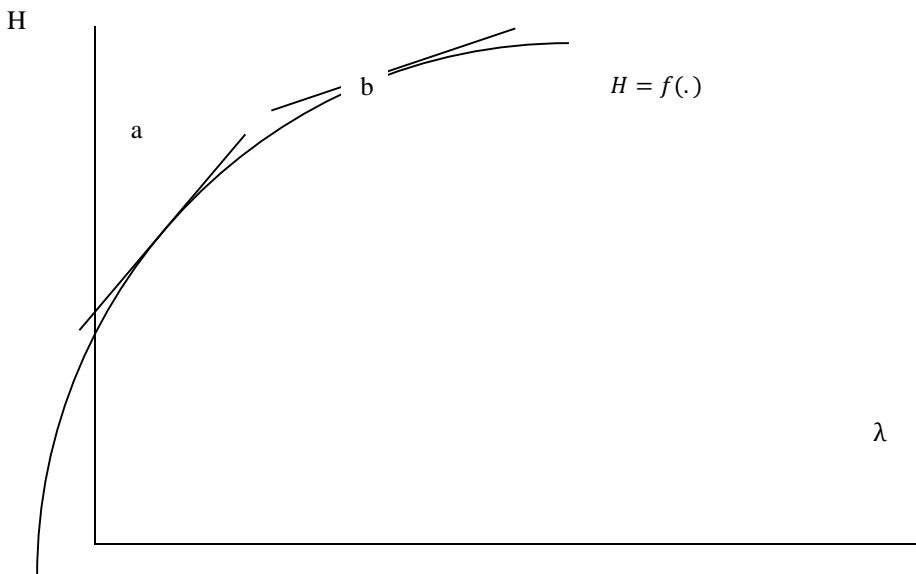
As noted earlier, $0 \leq \lambda \leq 1$ and λ capture the proximity advantage of the provinces to the population. In the case of absolute proximity, the parameter λ becomes equal to one ($\lambda = 1$).

Equation (35) shows how much changes take place in the provision of public health services, H, if the proximity factor λ changes.

The above equation is a concave continuous function and twice differentiable ($H_{\lambda} > 0$ and $H_{\lambda\lambda} \leq 0$).

Figure 09 figure draws on the marginal effect of the proximity advantage, λ , of the local government in public health provision, H decreases as it approaches one ($\lambda \rightarrow 1$). The marginal effect of (λ) is higher at point (a) compared to point (b).

Fig. 9. Relationship between Public Health Provision and Provincial Government Proximity Advantage



The health service, H , is on the vertical axis and the proximity advantage of the provinces, λ , is on the horizontal axis. As λ increases (approaches one), H also increases but at a decreasing rate. As shown in Figure 09, given the marginal benefit of λ , the provision of health services is higher at point (a) compared to point (b).

Likewise,

$$\frac{\partial H}{\partial \gamma} = \frac{H}{\gamma-1} \left(\frac{\ln 1}{\beta A \lambda^i} - \frac{\alpha \ln \alpha}{1-\alpha} - \ln H - \frac{1}{\gamma} \right) \quad \dots \quad \dots \quad \dots \quad \dots \quad \dots \quad (36)$$

γ denotes the technological advantage or the cost-effectiveness of the federal government in the provision of health services. The same argument applies to the relationship between H and γ as applies to the relationship between H and λ . The above equation shows marginal changes in the provision of H when γ changes, i.e., H increases at a decreasing rate when γ tends to approach one ($\gamma \rightarrow 1$).

5.2. Comparison of the Provision of Public Health Services (H) Under Centralised and Decentralised Regimes

The present study compares the provision of health services in both types against the tax rate, τ^i , which individuals must pay in either type of regime. As discussed above, the central government has a technological advantage over provincial governments. The relative technological advantage or cost-effectiveness of the central government in public health provision lies between 0 and 1 ($0 \leq \gamma \leq 1$). When γ approaches 1, the central government has more competency in the provision of public health. On the other hand, since the provincial government is nearer to the local people compared to the central government, it has an advantage in estimating the local needs, which is the proximity factor, λ . Furthermore, it is assumed that both types of governments levy the same type of tax, therefore, the tax rate is considered to be equal in both types of government.

Moreover, according to the above discussion, the provision of public health in either type of government depends on their respective advantages, that is, the proximity advantage of the provincial government, and the technological advantage of the federal government. Thus, to compare the centralisation and decentralisation for the provision of health services, the marginal benefit people extract from the H in terms of γ and λ against the marginal cost in terms of the tax rate, τ^i .

Based on the information discussed above, a comparative analysis is undertaken between both types of government for the provision of health services to assess whether decentralisation or centralisation is better for the efficient provision of public health, or whether the combination of both types of governments is preferred.

5.3. Proposition

The outcomes of the centralisation and decentralisation in the provision of public health may be summarised as follows:

- (1) If the provincial government's proximity parameter (λ), is superior to that of the federal government's technological advantage parameter (γ), the provincial government is preferred for the provision of public health provision.

- (2) If the federal government's technological efficiency factor (γ) outweighs the proximity factor of the provincial government, the federal government is preferred.
- (3) If the proximity factor (λ) offsets the technological advantage factor (γ) of the federal government for the provision of health services, both types of governments are equally preferred.

5.4. Discussion of the Model

The optimal provision of public health through either type of government is analysed by comparing the ratios of the cost-effectiveness parameter of centralisation, and the proximity parameter of decentralisation with the marginal cost, individuals must bear in terms of proportional tax (τ^i). Since, marginal cost, in terms of tax, is fixed, $\left(\frac{\xi}{n_i}\right)$ remains the same for the entire analysis.

As mentioned in Table 8 (first column), the marginal benefit gained from health services (H) given the proximity parameter, λ , of decentralisation is higher than the marginal benefit of cost-effectiveness parameter, γ , of centralisation $\left(\frac{\partial H}{\partial \lambda} > \frac{\partial H}{\partial \gamma}\right)$. In other words, the proximity parameter of the provincial government outweighs the cost-effectiveness, or parameter of the federal government, in the provision of health services, given the equal burden of marginal cost, the provincial government would better target the local needs $\left(\frac{\frac{\partial H}{\partial \lambda}}{\frac{\partial H}{\partial \gamma}} > \frac{\xi}{n_i}\right)$. Therefore, people prefer that the provincial government provides health services. The second column of Table 8 shows the opposite results, i.e., the cost-effectiveness parameter of the federal government is higher than the provincial government's proximity advantage parameter in the process of health services provision $\left(\frac{\partial H}{\partial \lambda} < \frac{\partial H}{\partial \gamma}\right)$. The marginal benefit from the federal government's cost-effectiveness factor dominates the provincial government's proximity parameter in the provision of health

Table 8

A Comparison of Public Health Provision in Provincial and Federal Governments Based On Equations 35 And 36 in the Model

1	Preference of the provincial government for the provision of public health	$\left(\frac{\frac{\partial H}{\partial \lambda}}{\frac{\partial H}{\partial \gamma}}\right) > \left(\frac{\xi}{n_i}\right)$	H^D is preferred to H^C $H^C < H^D$
2	Preference of the federal government for the provision of public health	$\left(\frac{\frac{\partial h}{\partial \lambda}}{\frac{\partial h}{\partial \gamma}}\right) < \left(\frac{\xi}{n_i}\right)$	H^C is preferred to H^D $H^C > H^D$
3	Indifference between the two governments for the provision of public health.	$\left(\frac{\frac{\partial h}{\partial \lambda}}{\frac{\partial h}{\partial \gamma}}\right) = \left(\frac{\xi}{n_i}\right)$	h^C as preferred h^D $h^C = h^D$

services corresponding to the tax rate $\left(\frac{\frac{\partial H}{\partial \lambda}}{\frac{\partial H}{\partial \gamma}} < \frac{\xi}{n_i}\right)$. In such a case, the individuals would prefer the federal government for the provision of health services, suggesting that, if the above argument holds, the federal government is more efficient and competent to provide health services.

Finally, if in case the provincial government's proximity parameter (λ) is as good as the federal government's cost-effectiveness parameter (γ), individuals remain indifferent $\left(\frac{\frac{\partial H}{\partial \lambda}}{\frac{\partial H}{\partial \gamma}} = \frac{\xi}{n_i}\right)$. The marginal benefits from the provincial government proximity parameter equal the federal government's cost-effectiveness parameter $\left(\frac{\partial H}{\partial \lambda} = \frac{\partial H}{\partial \gamma}\right)$. In such a situation, individuals may not be concerned with which type of government provides them health services.

6. DATA, VARIABLES, AND METHODOLOGY

The paper aims to assess the impact of decentralization on health outcomes through a pre-post comparison in Pakistan. This is facilitated by the strong intergovernmental fiscal relations between federal and provincial expenditures, particularly in the health sector. The study employs three vital indicators: life expectancy at birth (LE), infant mortality rate (IMR), and immunization coverage (FIC). LE estimates expected lifespan based on demographic, socioeconomic, and environmental factors. IMR is the number of infant deaths per 1,000 live births, while FIC represents children fully immunized within their first year. These indicators are widely acknowledged in development studies for gauging health system performance.

They were selected for their continuous subnational data availability and responsiveness to policy changes. Unlike disease-specific metrics, which can be affected by biological and demand shocks, LE, IMR, and FIC demonstrate more stable, incremental responses to policy levers. The empirical model, derived from established frameworks (Robalino et al., 2001; Barankay and Lockwood, 2007; Faguet and Sánchez, 2014; Faguet et al., 2020), is expressed as:

$$HS_t = \beta_0 + \beta_1 PCI_t + \beta_2 HEPC_t + \beta_3 DPT_t + \beta_4 DPC_t + \beta_5 RHCS_t + \beta_6 PS_t + \beta_7 BHUS_t + \beta_8 FD_t + LD_t + \epsilon_t \quad \dots \quad (6.1)$$

Where HS represents health outcomes (IMR, LE, FIC). PCI represents per capita income, HEPC symbolizes health expenditures by provincial health department, DPT symbolizes divisible pool transfer from center to province, RHCS symbolizes regional health centers per district, BHUS symbolizes basic health units in rural areas, DPC symbolizes population per dispensary, PS symbolizes paramedic staff, and FD symbolizes decentralization dummy (1 after 2009, 0 otherwise).

The model is log-transformed for elasticity interpretation. Anticipated findings are positive (or occasionally negative) relationships between health outcomes and decentralization variables, with significant coefficients. The Augmented Dickey-Fuller (ADF) unit root test confirms stationary time series, justifying the use of the Autoregressive Distributed Lag (ARDL) regression model.

7. DESCRIPTIVE STATISTICS

A time series dataset from 1975 to 2020 was constructed for both health and finance indicators in Balochistan. In three separate equations, life expectancy at birth, infant mortality rate, and fully immunised children were regressed on key explanatory variables to assess their impact on healthcare outcomes.

Table 9

Descriptive Statistics

Variables	Minimum	Maximum	Average	Standard Deviation
Pop per Bed	1,269.0	2,954.0	1,635.4	438.7
Per Capita Income (Rs.)	2,264.0	4,319.0	3,370.5	596.2
Population (Million)	3.6	13.7	7.1	2.6
Population per Dispensary	24.7	39.2	30.2	4.1
Doctor Absenteeism (%)	8.0	51.0	24.7	12.6
Divisible Pool Transfer	0.1	302.0	47.4	80.5
Number of BHUs	70.0	909.0	391.5	219.0
Number of RHCs	9.0	113.0	55.9	32.0
Per Capita Health Expenditures (Rs.)	10.3	2,322.0	420.7	640.2
Infant Mortality Rate	71.0	119.0	92.5	14.2
Life Expectancy	56.0	67.2	62.2	3.2
Fully Immunised Children	1.0	62.0	36.7	19.6
Provincial Budget (Rs. Billion)	0.3	465.5	79.4	121.9
Decentralisation (Revenue)	0.01	0.02	0.02	0.00
Decentralisation (Expenditure)	0.01	0.15	0.06	0.03
Decentralisation (Local)	0.04	0.58	0.23	0.12

The descriptive statistics of all variables based on various data sources are reported in Table 9. The value of overall expenditure decentralisation in Balochistan ranged between 0.01 and 0.15, which illustrates a significant improvement. In revenue decentralisation, Balochistan lags far behind its maximum share in total national revenue was just 0.02 percent. Another important variable is local decentralisation (devolution), which is expenditure decentralisation to the third tier (local governments) from the second tier (provincial government). It is interesting to note that there was a large dispersion in the devolution variable (Table 9). Three dependent variables also showed much dispersion. The highest variation was observed in immunised children since the maximum value is 62 and the minimum is just 1. Another important variable to report is divisible pool transfer, which was as low as Rs. 1 billion and as high as Rs. 302 billion, which shows better fiscal space made available for the province over time, particularly post-7th NFC Award.

8. RESULTS AND DISCUSSION

The ARDL regression model is used to regress all three health outcome variables on decentralisation and a range of other control variables using data from 1975 to 2020.

As discussed earlier, the 7th NFC Award and the 18th Amendment 2010 were the turning points towards decentralisation in which Balochistan gained not only a bigger fiscal space but also more autonomy in several subjects, including health. A dummy variable of fiscal decentralisation was used in the model besides the divisible pool transfer variable, which captures the nature and size of fiscal decentralisation.

Table 10
ADF Unit Root Test

Variable	Level		First Difference	
	t-Statistic	P-Value	t-Statistic	P-Value
LE	-1.818	0.367	-6.927	0.000
IMR	-1.108	0.704	-1.957	0.049
FIC	-3.200	0.027	-6.063	0.000
PCI	-0.993	0.748	-5.637	0.000
PCHE	0.005	0.954	-5.386	0.000
DPT	-0.479	0.886	-6.743	0.000
RHCS	-2.812	0.065	-7.994	0.000
DOC	-2.075	0.255	-5.465	0.000
ABDOC	-1.197	0.667	-8.231	0.000
DPC	-1.357	0.594	-6.122	0.000

Note: All variables are transformed into natural log.

8.1. Infant Mortality Rate and Decentralisation

The ARDL regression-based results (Table 10) indicate the significant impact of per capita income, regional health centers, and paramedic staff on reducing infant mortality rate (IMR) in Balochistan. However, fiscal decentralisation, divisible pool transfer, and doctor absenteeism did not favorably influence IMR.

Long-term coefficients suggest that a 1 percent increase in per capita income (PCI), regional health centers (RHCs), and paramedic staff (PS) led to a 0.848 percent, 0.764 percent, and 0.387 percent decrease in IMR, respectively. Conversely, decentralization led to an average annual increase of 0.106 percent in IMR. Notably, health expenditure per capita showed theoretical consistency but lacked statistical significance in reducing IMR. Additionally, in the short term, a 1 percent increase in lagged per capita income (PCI) raised the current IMR by 0.16 percent. Similarly, a 0.06 percent rise in divisible pool transfer led to a short-term increase in IMR. Conversely, regional health centers (RHCS), basic health units (BHUs), and paramedic staff (PS) played pivotal roles in reducing IMR. A 1 percent increase in RHCS and PS resulted in respective short-term reductions of 0.18 percent and 0.26 percent in IMR. These effects may vary with time lags. Doctor absenteeism in Balochistan led to a 0.027 percent increase in IMR. The fiscal decentralization dummy indicated that its short-term impact mirrored that of the long term, causing a 0.04 percent rise in IMR. Finally, the ECM (-1) coefficient was negative and significant, signifying that any short-term disequilibrium in IMR moved towards equilibrium at an approximate rate of 0.379 in the immediate year.

8.2. Life Expectancy Rate and Decentralisation

Life expectancy (LE) is examined alongside per capita health expenditure (PCHE) and regional health centers (RHCS). PCHE and RHCS are positively associated with life expectancy in Balochistan, while basic health units (BHUs) and paramedic staff have negative impacts. Per capita income and fiscal decentralization show negative but statistically insignificant effects in the long run. In the short run, increases in DPT and RHCS are associated with higher LE, while a 1 percent increase in paramedic staff leads to a 0.3 percent decrease in LE. The coefficient of ECM (-1) indicates a strong cointegrating relationship between LE and regressors. In a nutshell, it is suggesting that fiscal decentralization does not significantly contribute to improving life expectancy in Balochistan.

8.3. Child Immunisation Rate and Decentralisation

Fully Immunised Children (FIC) is a crucial healthcare indicator. Control variables including per capita income, BHUs, and paramedic staff show positive but statistically insignificant relationships. Divisible pool transfer (DPT) and per capita health expenditure (PCHE) are not significant in the long run. However, the FIC is positively related to RHCS, BHUs, and DPC, with highly elastic relationships. The decentralization dummy (FD) is negative but insignificant, indicating no favorable long-term impact on FIC.

In the short run, DPT has a positive and significant impact on FIC. The DPC has a negative and significant impact, indicating inefficiency in dispensaries. The ECM (-1) coefficient demonstrates a strong cointegrating relationship, with disequilibrium being corrected at a rate of 63.8 percent in the following year.

8.4. Local Government Decentralisation (Devolution) and Healthcare Outcomes

In 2001, Pakistan underwent a significant political transformation with the implementation of the Devolution of Power Plan. This shifted public services, including healthcare, to local governments, under elected representatives' control. The impact of local government decentralization (devolution) on healthcare outcomes is considered. Results show a positive and significant impact on all three health outcomes, driven primarily by devolution from the second tier to the third tier, distinct from provincial decentralization. The latter was given the wherewithal through a formula-based Provincial Finance Commission (Ahmed, 2016).

9. CONCLUSION AND POLICY RECOMMENDATIONS

A simple theoretical framework was built to compare the role of centralisation and decentralisation in health services provision. The model suggests that decentralisation, given its proximity parameter and accountability factor, may be more suitable for providing health services. Centralisation, on the other hand, is perhaps more efficient in providing health services due to better governance and institutional structure. According to the model's results, due to weak institutional structure and poor governance, the provincial setup can hardly improve the health services provision with better access and quality despite the decentralisation of administrative authorities and financial resources.

The model suggests that the provision of healthcare services under a provincial set-up will be effective only if the accountability mechanism and governance are strong. Otherwise, centralisation is more impactful than decentralisation given its efficiency and technological advancement in the provision of health services.

Second, using data from 1975 to 2020 to examine the effect of decentralisation, it was hypothesised that the health outcomes would improve if the total resource availability to the province increased, which is broadly in line with the literature on decentralisation and healthcare and other social services. In contrast to the existing literature, our empirical findings suggest that decentralisation does not significantly contribute to health outcomes when it comes to infant mortality rates in Balochistan. However, a negative but insignificant relationship was observed between decentralisation and life expectancy rate and immunisation rate in Balochistan. The main reason for this ineffectiveness appears to be weak institutions and governance structure. Moreover, various local factors were found to be responsible. These could be both supply-side and demand-side factors. The supply-side factors could be greater inefficiency in public management or ill-informed decisions, while demand-side factors could be a lack of awareness and lower public demand for health services.

Third, the empirical results show that in terms of better health services provision decentralisation seems ineffective on all accounts. The relationship between decentralisation variables and healthcare outcomes shows undesirable signs and statistical insignificance. Evidence for this comes from provincial-level time series regressions.

The present study adds to a broader understanding of decentralisation in Pakistan. First, the study adds to the understanding of the effects of decentralisation by undertaking a case study of the provision of health services in a large and important province of Pakistan that had problems in the past with the lack of autonomy and centralisation. Second, the theoretical framework shows that even if the fiscal space is enhanced and allocations to the health sector are increased, a decentralised setup may not be effective in improving public health services provision till the provinces have the requisite institutional and administrative capacity. Third, empirical results provide a solid ground to undertake more qualitative analyses of decentralisation in Pakistan.

Based on the theoretical and empirical results of the study, the following policy options may be considered:

- To make decentralisation effective for health services delivery, the governance structure at the provincial level needs to be improved, focusing more on the punctuality of the staff working in the health department and utilising the allocated funds efficiently to ensure the availability of equipment and medicine even at the BHUs level. Staff, including nurses, doctors, and paramedics, should be provided regular training.
- To optimise decentralisation for the health services provision, better decision space is required at the sub-national (district level), and the decision space may be accompanied by an expanded capacity and strong accountability.
- For all tiers of government to implement decentralisation, there should be a concerted effort to encourage greater knowledge of the de jure decision space and push all health officials to take responsibility for making decisions aiming at the better performance of health services.

- The development of an accountability mechanism at the local level as a policy objective should be given priority. Moreover, local decision-making with balanced configurations of the decision space must be encouraged along with the strengthening of institutional capacity and robust accountability mechanisms.

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