

NARRATIVE REVIEW

REHABILITATION MEDICINE

Managing barriers to resource allocation for the rehabilitation services in Pakistan: a review article

Aleena Waheed ¹, Saleh Shah ², Tahir Mahmood ³

Authors contribution:

1. Aleena Waheed, MSOMPT, DPT, Senior Lecturer, Department of Physical Therapy, Rashid Latif Khan University, Lahore, Pakistan; E-mail: alwaheed28@gmail.com; ORCID: {0000-0002-9048-3266}
2. Saleh Shah, PhD Health Management, Assistant Professor, Department of Physical Therapy, Superior University, Lahore, Pakistan; E-mail: saleh.shah@superior.edu.pk
3. Tahir Mahmood, MS-PT, DPT, Assistant Professor, Department of Physical Therapy, Rashid Latif Khan University, Lahore, Pakistan; E-mail: tahirmahmoodphysio@gmail.com; ORCID: {0000-0003-0175-5248}

Correspondence: Aleena Waheed, **E-mail:** alwaheed28@gmail.com; **Phone:** +92 321 4883868

ABSTRACT

The rehabilitation services including physical therapy, occupational therapy, speech and language therapy is an essential part of the healthcare system, which is required to enhance patients' quality of life. These services need a streamlined support system, which is required from the funding sources that significantly impact the efficacy. The accessibility, affordability, and quality of healthcare services are significantly influenced by healthcare finance and its utilization, which involves revenue generation and reimbursement processes to budgetary supervision and allocation of resources. Effective resource allocation is made possible by sound financial management, which minimizes undue usage and maximizes the use of existing resources in underfunded healthcare systems like Pakistan, where there is a greater need for funds for rehabilitation. Despite their value in the budget, rehabilitation services frequently receive a smaller portion of the healthcare budget.

There is a need to focus on several funding sources, such as commercial insurance plans, public sector grants, out-of-pocket costs for patients and families, and the functions of foreign aid and charitable donations. The possible ways can be increasing insurance coverage for rehabilitation services, increasing public sector investment and encouraging increased cooperation between public and private sector parties. Ultimately, the healthcare system and the rehabilitative services can be improved for future prevention of disability and evidence-based health policies that maximize available resources and high-quality healthcare.

This review offers a thorough analysis of and describes the current state of rehabilitation financing in Pakistan. In addition, it also provides considerable evaluation of barriers and suggested solutions in managing the finances required for running a viable rehabilitation system.

Keywords: Budgets; Funds; Funding Resources; Finance; Healthcare System; Hospitals; Patients; Rehabilitation

Citation: Waheed A, Shah S, Mahmood T. Managing barriers to resource allocation for the rehabilitation services in Pakistan: a review article. *Anaesth. pain intensive care* 2024;28(4):776–782; DOI: [10.35975/apic.v28i4.2528](https://doi.org/10.35975/apic.v28i4.2528)

Received: July 08, 2024; **Reviewed:** July 12, 2024; **Accepted:** July 26, 2024

1. INTRODUCTION

A complex healthcare finance system supports all medical services, including rehabilitation services. These systems incorporate producing revenue, managing resources, overseeing the budget, and allocating funds.¹ Therefore, healthcare finance is an essential part of the contemporary health system. The phrase "healthcare

finance system" represents an amalgam of financial laws, rules and regulatory guidelines on distributing, managing, and utilizing resources in the healthcare industry.² The financial aspects of the healthcare system range from revenue generation and reimbursement procedures to resource allocation and budget control. This system significantly impacts accessibility, quality and cost of healthcare services,³ underlining the need to preserve economic growth and rightful access to

healthcare. Moreover, the monetary and fiscal aspects of healthcare, encompassing economic, social, and political factors, bear significant consequences for public health results, healthcare imbalances, and the durability of the healthcare infrastructure.¹

Healthcare Finance System in Pakistan

Most population self-supports their healthcare services, while public and private financing systems or partnerships oversee Pakistan's healthcare finance system. The public healthcare units consisting of public hospitals and clinics provide healthcare to the general people. The main funding sources for public healthcare in Pakistan are government allowances and income tax. Inadequate investment in the public sector may lead to a lack of facilities, restrictions on necessary medications, ineligibility of medical personnel, and outdated technology.⁴ Some health insurance programs are still under the government's supervision to meet these shortages and lack of funding. These programs ensure the provision of financial resources to the deserving communities. These programs are designed to pay for necessary medical care, such as inpatient stays, outpatient procedures, and care for chronic illnesses. However, the breadth of reach of these initiatives is limited, preventing their successful implementation and long-term sustainability.⁵

Rehabilitation Finance and Healthcare System

Rehabilitation finance is crucial to providing healthcare services as it guarantees the accessibility of resources to the people. These include highly qualified staff, modern equipment, specialized facilities, and innovative treatment approaches tailored to meet the requirements of patients recovering from diseases, traumas, or disabilities.⁶ There is a chance that inadequate funding for rehabilitation services will impact patient outcomes, prolonged recovery periods, and meagre quality of life for people who require them.⁷ Robust financial management is also required to promote treatment modalities, technological innovations, and patient outcomes that optimize long-term functional outcomes, as well as research and development in rehabilitation. Finance supports both individual well-being and broader societal advantage, i.e., increased productivity, lower healthcare costs, and stronger community resilience, by making rehabilitation treatments comprehensive and accessible at all levels. Thus, getting optimal health outcomes for all patients seeking rehabilitative treatment and guaranteeing the seamless delivery of rehabilitation services depend on the efficient administration and distribution of financial resources within healthcare finance systems.⁸

Role of Rehabilitation Finance Management in the Healthcare System

To ensure that resources are used efficiently and that patients needing rehabilitation services receive top-notch rehab treatment, rehabilitation financial management is crucial. They can be expensive because rehabilitation services require specialized buildings, equipment, and experienced personnel. For this reason, financial management is critical in this industry. Effective financial management, which avoids unnecessary consumption and maximizes the utilization of available resources in underfunded healthcare systems like Pakistan, where there is a larger need for funding for rehabilitation, also makes resource allocation possible. Additionally, financial management ensures that healthcare facilities can guarantee that individuals needing rehabilitation treatments can access them without financial constraints.^{9,10}

Additionally, financial management and healthcare organizations' sustainability are linked to each other as healthcare organizations need to manage their finances strategically and effectively by identifying their revenue sources, setting fair service rates, and putting a cap on spending. Like all healthcare services, rehabilitation services need to set aside money to cover their costs as a continuum of treatment. Healthcare organizations must manage their finances strategically and effectively by identifying their revenue sources, setting fair service rates, and putting a cap on spending. These are essential in the present healthcare environment, where organizations need a robust financial management system because insurance companies and government programs have unpredictable payment rates.¹¹ One of rehabilitation finance management's main responsibilities is ensuring patients receive excellent treatment. Successful money management enables healthcare organizations to make the kind of investments in cutting-edge technology and highly qualified staff that are necessary to deliver superior rehabilitation services. It also enables companies to monitor and evaluate their advancement, identify improvement areas, and finance staff training.^{12,13}

WHO and Rehabilitation Finance

The World Health Organization (WHO) took an initiative known as “Rehabilitation 2030” that emphasizes the importance of financing rehabilitation services to ensure that individuals with disabilities or injuries can access the care they need to maximize their functioning and participation in society.¹⁴ WHO urges different countries to incorporate rehabilitation services into their plans for universal health coverage (UHC). These plans guarantee that everyone, no matter how wealthy or poor, can afford the necessary rehabilitative

services.¹⁵ Rehabilitation services should be integrated into the current health systems rather than viewed as separate treatment. This integration facilitates coordination between different levels of care and ensures that rehabilitation is a component of comprehensive healthcare delivery.¹⁶ The World Health Organization additionally suggests financing rehabilitation through a multisectoral approach that combines the work of the social welfare, employment, health, and education sectors. This approach recognizes that rehabilitation extends beyond the boundaries of the healthcare system and calls for collaboration across several sectors to satisfy the diverse needs of those with disabilities or injuries.¹⁷ Establishing sustainable funding mechanisms for rehabilitation is recommended for countries. These funding sources include a combination of public funds, commercial insurance, social health insurance, cash outlays, and other inventive financing techniques. Sustainability in funding ensures long-term continuity and high-quality rehabilitation programs.¹ The World Health Organization emphasizes how important it is to ensure equity and accessibility when sponsoring rehabilitation activities. This means addressing disparities in service accessibility based on an individual's geography, financial status, kind of disability, and additional factors. Governments should prioritize providing resources to impoverished and marginalized communities. Investing in well-proven rehabilitation methods maximizes available resources and improves care quality overall.¹⁸

Rehabilitation Services and Finance Management in Pakistan

Rehabilitation finance in a country can be generated through various sources depending on different funds according to the country's economic status. Based on its policies and healthcare system, each nation may have unique systems for creating and distributing rehabilitation funds.¹⁹ In this case, the funding provided by the government is crucial in producing funds for restoration. Funding for rehabilitation services may come from programs designated for this purpose or national healthcare budgets. In addition, international organizations donate money to help rehabilitation programs financially, particularly in underdeveloped nations. Finally, public-private partnerships— a collaboration between public and private entities that aids in the effective funding and delivery of rehabilitation programs—represent another significant source of funding for this type of program.^{7,20} According to economic status, there are three broad categories of countries: developed (high-income), developing (middle-income), and underdeveloped (low-income) countries.²¹

In Pakistan, rehabilitation services are provided by two main types of facilities firstly through rehabilitation wards/outdoor services i.e.: Mayo Hospital, Shifa International Hospital and secondly through Autonomous Rehabilitation Unit Centers i.e., Armed Forces Institute of Rehabilitation Medicine (AFIRM) and Pakistan Society for Rehabilitation of the Disabled (PSRD). These services receive a very small portion of Pakistan's already meagre healthcare budget compared to other healthcare sectors. Patients find seeking and obtaining rehabilitation services challenging due to a lack of financing.²² Lack of appropriate budgeting and financial planning for rehabilitation is one of the key causes of this. Patients may find it difficult to afford rehabilitation services and to have their insurance cover them because of Pakistan's underdeveloped reimbursement system and lack of standardized reimbursement policies, which make it difficult for healthcare organizations to project revenue and expenses accurately.²³ In addition, many healthcare facilities in Pakistan lack the specialized financial management teams and procedures to manage rehabilitation services' finances properly. This can result in poor financial planning, ineffective resource allocation, and issues keeping track of and controlling healthcare costs.⁴ Furthermore, there is a lack of data collection and analysis regarding the financial performance of rehabilitation services in Pakistan, which makes it difficult to assess the financial impact of developing rehabilitation services and make rational decisions about resource allocation and financial management.¹⁰

Allocation of Resources for Rehabilitative Services

One important component of finance management is considering the prevalence and incidence of specific conditions requiring rehabilitation, the demographics of the population, and the projected demand for services.²⁴ Despite their value, rehabilitation services frequently receive a smaller portion of the healthcare budget. Compared to acute care services, rehabilitation services are sometimes considered secondary or less important, leading to insufficient financing. The scarcity of information and proof of the need and affordability of rehabilitation programs in Pakistan. It becomes challenging for legislators and healthcare institutions to evaluate the demands and allocate resources without thoroughly evaluating the data.^{4,10}

Furthermore, one important consideration in allocating resources is the amount of funds available in the healthcare budget. In light of general financial restrictions, the government has expanded the imbalance of competing healthcare requirements and provided funding for rehabilitation services.²⁵ Other than this, the fragmentation of the healthcare system in Pakistan poses

a hindrance in resource allocation for rehabilitation services. The responsibility for healthcare delivery and financing is divided between federal and provincial governments, resulting in disparities in the availability and accessibility of resource allocation across different regions.⁴ Moreover, having no proper government policies to determine the financial resources for rehabilitation programs creates many gaps in management.²⁶

Funding Sources for Rehabilitation Services

In Pakistan, there are different combinations of financial sources for rehabilitation services, including a portion of Pakistan's healthcare budget set by the government for rehabilitation programs. These funds are usually distributed by provincial health agencies and the Ministry of National Health Services, Regulations, and Coordination.¹¹ Other than this, the government has taken the initiative to implement some public health insurance programs to offer financial security for medical treatments, including rehabilitation. One is the Sehat Sahulat Program, which assists vulnerable populations with the expense of necessary healthcare services. These programs have many further options, which differ in terms of their breadth and coverage of treatment required.^{5,27,28} Some non-governmental organizations (NGOs) and international donor organizations are important funding sources in Pakistan such as Pakistan Society for Rehabilitation of the Disabled (PSRD) and International Committee of the Red Cross (ICRC), respectively. The NGOs offer grants, funding, and technical support to raise the standard and accessibility of rehabilitation services. The donated funds may be allocated to certain initiatives targeting marginalized groups' rehabilitation requirements.²⁹ Rehabilitation services in Pakistan are also partly funded by the commercial sector. Patient payments, health insurance reimbursements, and other private financing methods are how private healthcare providers, hospitals, and clinics make funds. These funds are generated by the patients who can afford them, so the private rehabilitation therapies may also be paid for out of pocket.³⁰

Challenges and Barriers in Rehabilitation Finance Management in Pakistan

In underdeveloped countries, rehabilitation finance lies in catastrophic conditions, with more challenges due to limited infrastructure. Inadequate or irregular government funding could result in gaps in the services provided by rehabilitation programs. Charitable foundations and non-governmental organizations (NGOs) frequently fill large financial shortfalls and support rehabilitation programs. Furthermore, public-

private collaborations can help use resources and knowledge to increase developing nations' access to rehabilitation services.

Management of rehabilitation finances in Pakistan has always faced several challenges and barriers. The main challenge, particularly in rehabilitation treatment, is the availability of funding, which is impacted by Pakistan's low overall budget for healthcare services. Due to this constrained budget, it is not easy to sufficiently fund and maintain rehabilitation programs.³¹ Compared to other healthcare services like primary or acute care, rehabilitation services are considered less important. Policymakers and medical experts also lack enough knowledge regarding the significance of rehabilitation programs.³² This prioritization and ignorance affect adequate financing and resource allocation for rehabilitation, impeding these services' growth and development.³³

Moreover, financial obstacles also keep many people in Pakistan from receiving rehabilitation programs. These financial obstacles include not having health insurance, paying large out-of-pocket, and having few options for free or subsidized rehabilitation therapies, especially for vulnerable and marginalized groups.³⁴ As an alternative to these, there are some financial sources and processes in Pakistan in which the funding of rehabilitative programs is frequently dispersed. However, this dispersion may result in inefficiencies, redundant work, and difficulties efficiently allocating and utilizing resources.⁴ These financial sources include various stakeholders such as government agencies, healthcare providers, non-governmental organizations, and charitable funders. These sources frequently lack coordination and collaboration due to the incoherent distribution of resource allocation, which results in inefficiencies and gaps in service delivery.³⁵

Furthermore, the lack of proper rehabilitation infrastructure is also considered a barrier, including a shortage of trained healthcare professionals, such as physiotherapists, occupational therapists, and speech therapists. This shortage limits the availability and quality of rehabilitation services and hampers the efficient utilization of financial resources.¹⁰ Another consideration is that inadequate facilities, machinery, and infrastructure make it difficult to provide rehabilitation services. These inadequate facilities and tools not only compromise the standard of treatment but also restrict the effectiveness with which resources can be used.³⁶ Another challenge that has been noticed is monitoring the impact of rehabilitation services and utilization of rehabilitation funds due to inadequate monitoring and assessment methods. Monitoring will help to consider the cost-effectiveness of rehabilitation treatments in allocating resources, which can be possible

by managing the best use of resources, governments, and healthcare institutions after evaluating the effects and results of various rehabilitation therapies. It is informative for policymakers to find gaps, gauge effectiveness, and implement evidence-based changes to enhance the financial management of rehabilitation without strong monitoring and evaluation systems.^{37, 38}

Suggestions to Improve Rehabilitation Framework

Improving the rehabilitation finance system in Pakistan would require a multifaceted approach, addressing both systemic issues and specific challenges within the current rehabilitation framework. This will help to achieve Sustainable Development Goal 3 (SDG 3), which aims to ensure universal health coverage and promote well-being for all ages, including access to quality healthcare services. However, achieving this goal requires addressing immediate healthcare needs and enhancing the resources in rehabilitation services. Firstly, the government should provide reasonable funding for rehabilitation programs and related facilities. This can be done by allocating a specific quota of the national healthcare budget for rehabilitation services, ensuring adequate resources are made easily available at government healthcare facilities. Another way to make it possible is by fostering partnerships between the government and private sector organizations to invest in rehabilitation infrastructure and services, which can supplement government funding and bring in expertise from the private sector to enhance service delivery.

Moreover, assuring fair access to rehabilitation services is a fundamental resource allocation principle that is the moral and ethical duty of the Pakistani government. It should make policies to distribute resources to reduce inequalities and give everyone, regardless of socioeconomic background or geography, an equal chance to receive rehabilitation services.³⁹ Additionally, advocacy is required to prioritize rehabilitation funding and increase public awareness of the value of rehabilitation services. This includes interacting with decision-makers, medical professionals, and the general public to spread knowledge of the impact of rehabilitation services on patient outcomes and the efficiency of the healthcare system as a whole.⁴⁰

Furthermore, expanding the range of necessary medical procedures that health insurance covers is critical. Furthermore, establishing community-based rehabilitation (CBR) programs was necessary to reach marginalized populations, particularly those in rural areas. These initiatives will reduce the demand for centralized facilities by enabling local communities to manage rehabilitation requirements independently.³¹ Furthermore, expanding the range of treatments that

health insurance policies cover for necessary medical procedures is crucial. Additionally, to reach disenfranchised communities—especially those living in rural areas—community-based rehabilitation (CBR) projects had to be launched. These initiatives will reduce the demand for centralized facilities by enabling local communities to manage rehabilitation requirements independently.⁴¹ Pakistan's government and medical facilities need to prioritize the financial management of rehabilitation in the current environment. Some strategies to do this include boosting financing for rehabilitation services, implementing appropriate financial planning and budgeting procedures, enhancing the reimbursement scheme, and investing in data gathering and analysis. To guarantee the effective and efficient use of resources, it is also crucial to promote accountability and openness in financial management operations.⁴² By putting these into reality, Pakistan may work toward developing a more robust and inclusive rehabilitation service system that effectively meets the needs of individuals with disabilities and promotes their full integration into society.

CONCLUSION

Pakistan's healthcare funding system incorporates both private and public approaches. This sector must employ efficient financial management techniques to optimize resources and meet the rising demand for rehabilitation services. Pakistan's current rehabilitation financing management needs to be significantly improved to ensure the availability, accessibility, and quality of rehabilitation therapies for impoverished patients and to achieve the Sustainable Development Goal 3 (SDG 3), which aims to ensure universal health coverage and promote well-being for all ages.

Conflict of interest

The authors declare no conflict of interest.

Authors contribution

AW: Concept and design, collection and assembly of the literature, drafting the paper, final approval & guarantor of the paper

SS, TM: Critical revision, literature search, drafting the manuscript

REFERENCES

1. Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *Lancet Glob Health*. 2018;6(11). [PubMed] DOI: [10.1016/S2214-109X\(18\)30386-3](https://doi.org/10.1016/S2214-109X(18)30386-3)
2. Hsu J, Majdzadeh R, Harichi I, Soucat A. Health system transformation in the Islamic Republic of Iran: an assessment of

- key health financing and governance issues. World Health Organization. Available from: <https://iris.who.int/handle/10665/333760>
3. Akinleye DD, McNutt LA, Lazariu V, McLaughlin CC. Correlation between hospital finances and quality and safety of patient care. *PLoS One*. 2019;14(8). [PubMed] DOI: [10.1371/journal.pone.0219124](https://doi.org/10.1371/journal.pone.0219124)
 4. Khan SJ, Asif M, Aslam S, Khan WJ, Hamza SA. Pakistan's healthcare system: A review of major challenges and the first comprehensive universal health coverage initiative. *Cureus*. 2023;15(9). [PubMed] DOI: [10.7759/cureus.44641](https://doi.org/10.7759/cureus.44641)
 5. Hasan SS, Mustafa ZU, Kow CS, Merchant HA. "Sehat Sahulat Program": A Leap into the Universal Health Coverage in Pakistan. *Int J Environ Res Public Health*. 2022;19(12):6998. [PubMed] DOI: [10.3390/ijerph19126998](https://doi.org/10.3390/ijerph19126998)
 6. Shahabi S, Ahmadi Teymourlouy A, Shabaninejad H, Kamali M, Lankarani KB. Financing physical rehabilitation services in Iran: a stakeholder and social network analysis. *BMC Health Serv Res*. 2020;20(1):599. [PubMed] DOI: [10.1186/s12913-020-05447-4](https://doi.org/10.1186/s12913-020-05447-4)
 7. Neill R, Shawar YR, Ashraf L, Das P, Champagne SN, Kautsar H, et al. Prioritizing rehabilitation in low-and middle-income country national health systems: a qualitative thematic synthesis and development of a policy framework. *Int J Equity Health*. 2023;22(1):91. [PubMed] DOI: [10.1186/s12939-023-01896-5](https://doi.org/10.1186/s12939-023-01896-5)
 8. Mitchell J, Shirota C, Clanchy K. Factors that influence the adoption of rehabilitation technologies: a multi-disciplinary qualitative exploration. *J Neuroeng Rehabil*. 2023;20(1):80. [PubMed] DOI: [10.1186/s12984-023-01194-9](https://doi.org/10.1186/s12984-023-01194-9)
 9. Alshehri A, Balkhi B, Gleeson G, Atassi E. Efficiency and Resource Allocation in Government Hospitals in Saudi Arabi: A Casemix Index Approach. *Healthcare (Basel)*. 2023;11(18):2513. [PubMed] DOI: [10.3390/healthcare11182513](https://doi.org/10.3390/healthcare11182513)
 10. Ahmed N, Shaikh SA, Riaz A, Midhet F, Zia N. Public sector rehabilitation services for physical disabilities in tertiary care hospitals of Karachi, Pakistan: A qualitative study. *Injury*. 2023;54:110798. [PubMed] DOI: [10.1016/j.injury.2023.05.029](https://doi.org/10.1016/j.injury.2023.05.029)
 11. Tunio HK, Bhutto RA, Khokhar SR, Jamal M, Memon F, Siddique SJ, et al. Healthcare financing and payment options in Pakistan: A review of Pakistan's health financing system. *J Peoples Uni Med Health Sci Nawabshah*. 2021;11(4):62-6. [FreeFullText]
 12. Malik A, Field C, Gorwood P. Managing financial resources in healthcare settings. *Psychiatry In Practice: Education, Experience, And Expertise*; 2016:45.
 13. Sharma P. *Financial Management in Health Care. Healthcare System Management: Methods and Techniques*: Springer; 2022. p. 215-37.
 14. Gimigliano F, Negrini S. The World Health Organization "rehabilitation 2030: a call for action". *Eur J Phys Rehabil Med*. 2017;53(2):155-68. [PubMed] DOI: [10.23736/S1973-9087.17.04746-3](https://doi.org/10.23736/S1973-9087.17.04746-3)
 15. Kuper H, Hanefeld J. Debate: can we achieve universal health coverage without a focus on disability? *BMC Health Serv Res*. 2018;18(1):738. [PubMed] DOI: [10.1186/s12913-018-3547-2](https://doi.org/10.1186/s12913-018-3547-2)
 16. Mills JA, Cieza A, Short SD, Middleton JW. Development and validation of the WHO rehabilitation competency framework: a mixed methods study. *Arch Phys Med Rehabil*. 2021;102(6):1113-23. [PubMed] DOI: [10.1016/j.apmr.2020.10.129](https://doi.org/10.1016/j.apmr.2020.10.129)
 17. van Rensburg AJ, Brooke-Sumner C. Intersectoral and multisectoral approaches to enable recovery for people with severe mental illness in LMICs: A scoping review. *Glob Ment Health (Camb)*. 2023;10:e19. [PubMed] DOI: [10.1017/gmh.2023.10](https://doi.org/10.1017/gmh.2023.10)
 18. Love-Koh J, Griffin S, Kataika E, Revill P, Sibandze S, Walker S, et al. Methods to promote equity in health resource allocation in low-and middle-income countries: an overview. *Global Health*. 2020;16(1):6. [PubMed] DOI: [10.1186/s12992-019-0537-z](https://doi.org/10.1186/s12992-019-0537-z)
 19. Bachani A, Bentley JA, Kautsar H, Neill R, Trujillo AJ. Suggesting Global Insights to Local Challenges: Expanding Financing of Rehabilitation Services in Low and Middle-Income Countries. *Front Rehabil Sci*. 2024;5:1305033. [PubMed] DOI: [10.3389/fresc.2024.1305033](https://doi.org/10.3389/fresc.2024.1305033)
 20. Bright T, Wallace S, Kuper H. A systematic review of access to rehabilitation for people with disabilities in low-and middle-income countries. *Int J Environ Res Public Health*. 2018;15(10):2165. [PubMed] DOI: [10.3390/ijerph15102165](https://doi.org/10.3390/ijerph15102165)
 21. Khan T, Abimbola S, Kyobutungi C, Pai M. How we classify countries and people—and why it matters. *BMJ Global Health*. 2022;7:e009704. [FreeFullText]
 22. Rehman SSU. Challenges in Rehabilitation Research in Pakistan. *J Riphah Coll Rehabil Sci*. 2023;11(01). [FreeFullText]
 23. Samad L, Ashraf MN, Mohammad AA, Fatima I, Fowler Z, Albutt K, et al. Access and Financial Burden for Patients Seeking Essential Surgical Care in Pakistan. *Ann Glob Health*. 2022;88(1). [PubMed] DOI: [10.5334/aogh.3784](https://doi.org/10.5334/aogh.3784)
 24. Cieza A, Causey K, Kamenov K, Hanson SW, Chatterji S, Vos T. Global estimates of the need for rehabilitation based on the Global Burden of Disease study 2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet*. 2020;396(10267):2006-17. [PubMed] DOI: [10.1016/S0140-6736\(20\)32340-0](https://doi.org/10.1016/S0140-6736(20)32340-0)
 25. Daniels N. Resource Allocation and Priority Setting. In: Barrett DH, Ortmann LW, Dawson A, Saenz C, Reis A, Bolan G, editors. *Public Health Ethics: Cases Spanning the Globe*. Chapter 3. Cham: Springer; 2016. p. 61-94. [PubMed] DOI: [10.1007/978-3-319-23847-0_3](https://doi.org/10.1007/978-3-319-23847-0_3)
 26. Skempes D, Kiekens C, Malmivaara A, Michail X, Bickenbach J, Stucki G. Supporting government policies to embed and expand rehabilitation in health systems in Europe: A framework for action. *Health Policy*. 2022;126(3):158-72. [PubMed] DOI: [10.1016/j.healthpol.2021.06.014](https://doi.org/10.1016/j.healthpol.2021.06.014)
 27. Walker WM. Regional: Enhancing ADB's Support for Social Protection to Achieve the Sustainable Development Goals. *Asian Dev Bank*; 2018. [FreeFullText]
 28. Qazi AE, Khattak FH. Sustainability of Social Health Insurance. *Pak Dev Rev*. 2019. [FreeFullText]
 29. Ali M, David MK. Lack of Implication among NGO Regulations in Pakistan: A Complicated Legislation System and its Impact on Asia and Europe. *AEI-Insights*. 2016;2(1):63-77. [FreeFullText]

30. Samad L, Iqbal M, Tariq A, Shahzad W, Khan AJ. Equitable access to comprehensive surgical care: the potential of indigenous private philanthropy in low-income settings. *World J Surg.* 2015;39:21-8. [PubMed] DOI: [10.1007/s00268-014-2852-0](https://doi.org/10.1007/s00268-014-2852-0)
31. Muhammad Q, Eiman H, Fazal F, Ibrahim M, Gondal MF. Healthcare in Pakistan: Navigating Challenges and Building a Brighter Future. *Cureus.* 2023;15(6). [PubMed] DOI: [10.7759/cureus.40218](https://doi.org/10.7759/cureus.40218)
32. Spiess AAF, Skempes D, Bickenbach J, Stucki G. Exploration of current challenges in rehabilitation from the perspective of healthcare professionals: Switzerland as a case in point. *Health Policy.* 2022;126(3):173-82. [PubMed] DOI: [10.1016/j.healthpol.2021.09.010](https://doi.org/10.1016/j.healthpol.2021.09.010)
33. Shahabi S, Kiekens C, Etemadi M, Mojangani P, Teymourlouei AA, Lankarani KB. Integrating rehabilitation services into primary health care: policy options for Iran. *BMC Health Serv Res.* 2022;22(1):1317. [PubMed] DOI: [10.1186/s12913-022-08695-8](https://doi.org/10.1186/s12913-022-08695-8)
34. Soltani S, Takian A, Sari AA, Majdzadeh R, Kamali M. Financial barriers to access to health services for adult people with disability in Iran: the challenges for universal health coverage. *Iran J Public Health.* 2019;48(3):508. [PubMed]
35. Jerwanska V, Kebbie I, Magnusson L. Coordination of health and rehabilitation services for person with disabilities in Sierra Leone—a stakeholders' perspective. *Disabil Rehabil.* 2023;45(11):1796-804. [PubMed] DOI: [10.1080/09638288.2022.2074551](https://doi.org/10.1080/09638288.2022.2074551)
36. National Academies of Sciences E, Medicine. Factors that affect healthcare utilization. *Healthcare utilization as a proxy in disability determination*: National Academies Press (US); 2018. [PubMed] DOI: [10.17226/24969](https://doi.org/10.17226/24969)
37. Greiner AC, Knebel E. Challenges facing the health system and implications for educational reform. *Health Professions Education: A Bridge to Quality*: National Academies Press (US); 2003. [PubMed] DOI: [10.17226/10681](https://doi.org/10.17226/10681)
38. Hill SR, Olson LG, Falck-Ytter Y, Cruz AA, Atkins D, Baumann M, et al. Incorporating considerations of cost-effectiveness, affordability, and resource implications in guideline development: article 6 in integrating and coordinating efforts in COPD guideline development. An official ATS/ERS workshop report. *Proc Am Thorac Soc.* 2012;9(5):251-5. [PubMed] DOI: [10.1513/pats.201208-059ST](https://doi.org/10.1513/pats.201208-059ST)
39. Magnusson L, Kebbie I, Jerwanska V. Access to health and rehabilitation services for persons with disabilities in Sierra Leone—focus group discussions with stakeholders. *BMC Health Serv Res.* 2022;22(1):1003. [PubMed] DOI: [10.1186/s12913-022-08366-8](https://doi.org/10.1186/s12913-022-08366-8)
40. Kuehne F, Kalkman L, Joshi S, Tun W, Azeem N, Buowari DY, et al. Healthcare provider advocacy for primary health care strengthening: a call for action. *J Prim Care Community Health.* 2022;13:21501319221078379. [PubMed] DOI: [10.1177/21501319221078379](https://doi.org/10.1177/21501319221078379)
41. Chapel JM, Wang G. Understanding cost data collection tools to improve economic evaluations of health interventions. *Stroke Vasc Neurol.* 2019;4(4):214-22. [PubMed] DOI: [10.1136/svn-2019-000301](https://doi.org/10.1136/svn-2019-000301)
42. Khattak AF, Rahman AU, Khattak M, Qazi M, Gilani H, Khan A, et al. Toward Sustainable Healthcare Systems: A Low and Middle-Income Country's Case for Investing in Healthcare Reforms. *Cureus.* 2023;15(5). [PubMed] DOI: [10.7759/cureus.39345](https://doi.org/10.7759/cureus.39345)