



# Improving Rehabilitation Access for People with Disabilities in Iran: A Policy Brief

Kianoush Abdi<sup>1,2</sup>, Behzad Karamimatin<sup>3</sup>, Shahin Soltani<sup>3,4\*</sup>

Received: 3 Jul 2024

Published: 1 Oct 2024

## Abstract

**Background:** Recent research has highlighted significant socioeconomic disparities in the utilization of rehabilitation services (URS) among Iranian adults with disabilities. This policy brief aims to provide actionable recommendations to alleviate the financial burden of rehabilitation services on people with disabilities (PWDs) in Iran.

**Methods:** This policy brief draws on findings from a study involving 786 Iranian adults with disabilities, which examined patterns and determinants of rehabilitation service use.

**Results:** The study revealed that only 8.10% of participants had used rehabilitation services in the past 3 months. A Concentration Index (C) of 0.25 indicates disproportionate access to these services among higher socioeconomic status groups. The wealth index emerged as the most significant contributor (94.22%) to these disparities, followed by factors such as age, disability severity, and marital status. To address these inequities, the brief recommends targeted policy interventions, including financing mechanisms, expanded outreach programs, comprehensive support systems, and systemic reforms.

**Conclusion:** The implementation of these strategies is crucial to ensuring equitable access to rehabilitation services, thereby enhancing the quality of life for all individuals with disabilities in Iran.

**Keywords:** Health policy, Rehabilitation, Financial protection, Socioeconomic inequality

**Conflicts of Interest:** None declared

**Funding:** This study was funded by Kermanshah University of Medical Sciences (proposal number 4000821). The funder had no involvement in the study design, data collection, analysis, interpretation, or manuscript preparation.

\*This work has been published under CC BY-NC-SA 4.0 license.

Copyright© Iran University of Medical Sciences

**Cite this article as:** Abdi K, Karamimatin B, Soltani S. Improving Rehabilitation Access for People with Disabilities in Iran: A policy Brief. *Med J Islam Repub Iran.* 2024 (1 Oct);38:113. <https://doi.org/10.47176/mjiri.38.113>

## Introduction

Rehabilitation services are essential for people with disabilities (PWDs) to improve their functional abilities and quality of life (1). However, access to these services is often inequitable, especially in low- and middle-income countries (2). In Iran, a significant proportion of adults with disabilities face barriers in accessing rehabilitation services, in which socioeconomic status (SES) plays a crucial role (3-8). The disparities in URS are indicative of broader systemic issues that need to be addressed to ensure equitable healthcare for all (9). This policy brief examines the socioeconomic factors contributing to these disparities and suggests interventions to improve access for marginalized groups. By understanding and addressing these disparities,

policymakers can develop more inclusive and effective health strategies that cater to the needs of all individuals with disabilities, regardless of their socioeconomic background.

## Methods

This policy brief is based on findings from our previous study, which conducted a secondary analysis of data from 786 Iranian adults aged 18 and older (10). The participants were drawn from the Iranian Society with Disabilities (ISD), a nongovernmental organization dedicated to improving access to education, healthcare, assistive devices, and other resources for people with disabilities in Iran. The

**Corresponding author:** Dr Shahin Soltani, [shahin.soltani@kums.ac.ir](mailto:shahin.soltani@kums.ac.ir)

<sup>1</sup> Department of Rehabilitation Management, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

<sup>2</sup> Pediatric Neurorehabilitation Research Center, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

<sup>3</sup> Research Center for Environmental Determinants of Health, Health Institute, Kermanshah University of Medical Sciences, Kermanshah, Iran

<sup>4</sup> Students Research Committee, Kermanshah University of Medical Sciences, Kermanshah, Iran

### ↑What is “already known” in this topic:

People with disabilities face barriers when they attempt to access health care.

### →What this article adds:

This policy brief provides recommendations that can ensure equitable access to rehabilitation services and improve the quality of life for all individuals with disabilities in Iran.

primary outcome measured was whether participants had utilized rehabilitation services in the past 3 months. The analysis also considered demographic variables, including age, sex, place of residence, marital status, head of household status, and health insurance coverage, alongside disability severity and socioeconomic factors, as determinants of rehabilitation service utilization.

To assess socioeconomic inequalities in rehabilitation service use, the study estimated the Concentration Index (C), which was calculated using the "convenient covariance" formula (11):

$$C = \frac{2 * cov(y_i r_i)}{\mu}, \quad (1)$$

In this equation,  $y_i$  represents the health outcome variable (eg, access to rehabilitation services) for participant  $i$ ,  $r_i$  is the fractional rank of participant  $i$  within SES distribution, and  $\mu$  is the mean of the health outcome variable. Since financial access to rehabilitation services was measured as a binary variable, the usual range of +1 to -1 for the C coefficient was not applicable. To address this, we applied normalization based on Wagstaff's method (12).

The normalized C value was further decomposed to determine how different explanatory variables contribute to the observed socioeconomic inequality in rehabilitation service utilization. This decomposition follows the approach outlined by Wagstaff et al(13), where the relationship between the health outcome variable ( $y$ ) and a set of explanatory variables ( $x$ ) is analyzed within a regression framework.

### Results

Our study showed that 8.10% of participants had used rehabilitation services in the past three months. The Concentration Index (C) was calculated at 0.25, indicating a significant concentration of access to rehabilitation services among individuals in higher socioeconomic status (SES)

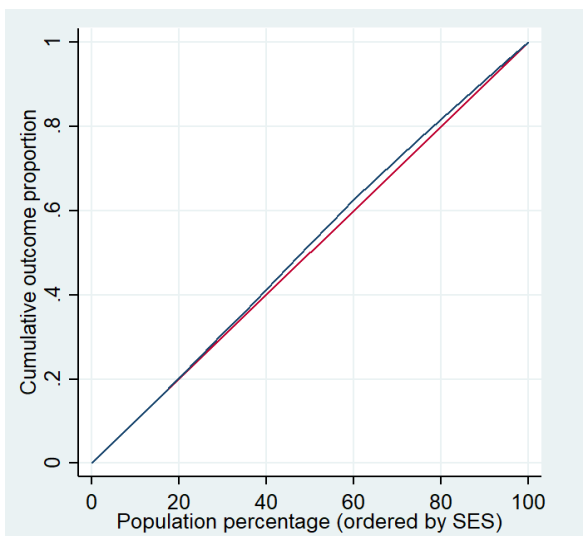


Figure 1. The Lorenz curve illustrates the cumulative distribution of rehabilitation service utilization across the population, ordered by socioeconomic status (SES)

groups (Figure 1). Decomposition analysis further identified the wealth index as the primary contributor to this disparity, accounting for 94.22% of the observed inequality.

The concentration index (C) was 0.25, indicating a disproportionate concentration of access to rehabilitation services among people in higher SES groups (Figure 1). Decomposition analysis showed that the wealth index was the most significant contributor to disparities, accounting for 94.22% of the inequality.

Also, age (31.04%), disability severity (21.25%), and marital status (11.26%) were notable contributors, indicating that participants in younger age groups, those with more severe disability, and married individuals were generally wealthier and had better access to rehabilitation services compared to their counterparts in other groups.

### Discussion

#### Implications and Policy Recommendations

Based on the findings of our previous study (10), this policy brief recommends the following policy options to protect PWDs from the financial burdens of rehabilitation services in Iran:

#### Expanding Insurance Coverage and Subsidies

**Health Insurance Coverage:** Expand health insurance coverage to include rehabilitation services, ensuring that people have access to necessary treatments without facing financial barriers. This recommendation aims to make rehabilitation services an integral part of health insurance benefits, reducing out-of-pocket expenses for patients. To integrate rehabilitation services into Iran's healthcare insurance coverage, several key policy changes and steps are required. First, legislative amendments must be made to health insurance laws to include rehabilitation services, with updated regulations for both public and private insurers. Financial adjustments are crucial, including reallocating budgetary resources and conducting a cost-benefit analysis to ensure sustainable funding. Insurance providers need clear guidelines on the types of covered services and reimbursement rates, while a network of accredited service providers should be established. Public awareness campaigns and professional training will help inform and educate about the new coverage. Additionally, pilot programs should be launched to test the implementation, with ongoing monitoring and evaluation to refine the process. Engaging stakeholders and incorporating their feedback will be essential for effective policy execution and broad support.

**Subsidized Rehabilitation Services:** Offering subsidized or low-cost rehabilitation services for those who cannot afford standard fees, making essential treatments more financially accessible. Subsidization ensures that even those with limited financial means can access rehabilitation services without significant financial strain.

#### Implementing Financial Assistance Programs

**Sliding Scale Fees:** Implement a sliding scale fee structure for rehabilitation services based on income levels, ensuring that costs are adjusted according to individuals' financial capabilities. This approach enables individuals to

pay for services based on their ability to pay, reducing financial barriers to accessing rehabilitation care.

**Waivers for Low-Income People:** Provide waivers or discounts for rehabilitation service fees for low-income individuals or families, reducing the financial burden on those who are economically disadvantaged. Waivers ensure that cost is not a barrier to accessing essential rehabilitation services for those in need.

**Government Grants or Assistance Programs:** Establish government grants or assistance programs to provide financial support to individuals with disabilities for rehabilitation services, covering expenses—such as therapy sessions, assistive devices, and home modifications. These programs provide direct financial assistance to individuals with disabilities, ensuring they can access the necessary rehabilitation services and supports.

**Tax Deductions or Credits:** Offer tax deductions or credits for rehabilitation-related expenses incurred by individuals with disabilities or their caregivers, providing financial relief through reduced tax burdens. Tax incentives help offset the financial costs associated with rehabilitation services, making them more affordable for individuals and families.

**Employer-Sponsored Rehabilitation Benefits:** Encourage employers to offer rehabilitation benefits as part of their employee health insurance plans, ensuring that individuals have access to necessary services through their workplace benefits. Employer-sponsored benefits provide an additional avenue for individuals to access rehabilitation services, often with lower out-of-pocket costs.

#### **Facilitating Community Support and Fundraising**

**Community Fundraising Initiatives:** Facilitate community fundraising initiatives to support individuals in need of rehabilitation services, pooling resources from local communities to assist with financial costs. Community support initiatives can help individuals access rehabilitation services by providing financial assistance through donations and fundraising efforts.

**Charitable Organizations and Foundations:** Partner with charitable organizations and foundations that provide financial assistance for rehabilitation services, leveraging external funding sources to support individuals in need. Charitable organizations and foundations often specialize in providing financial assistance for specific healthcare needs, including rehabilitation services.

#### **Offering Financial Instruments and Flexibility**

**Medical Savings Accounts:** Establish medical savings accounts or health savings plans specifically earmarked for rehabilitation expenses, allowing individuals to save and allocate funds for their rehabilitation needs. Medical savings accounts provide individuals with a dedicated financial resource for covering rehabilitation expenses, offering flexibility and control over healthcare spending.

**Microfinance or Loan Programs:** Establish microfinance or loan programs specifically tailored for individuals requiring rehabilitation services, providing access to financial assistance for treatment expenses with manageable re-

payment terms. Microfinance or loan programs can help individuals cover upfront rehabilitation costs while spreading payments over time, reducing financial strain.

**Flexible Payment Plans:** Offer flexible payment plans for rehabilitation services, allowing individuals to spread out the cost of treatment over time, and easing the immediate financial burden. Flexible payment plans provide individuals with the option to pay for rehabilitation services in installments, making them more affordable and accessible.

#### **Providing Advocacy and Legal Protections**

**Patient Advocacy for Insurance Coverage:** Advocate for improved insurance coverage for rehabilitation services through patient advocacy groups, lobbying for policy changes that ensure adequate financial protection for individuals accessing these essential treatments. Patient advocacy efforts aim to raise awareness of the importance of rehabilitation services and secure comprehensive insurance coverage for all individuals.

**Legal Protections Against Discrimination:** Enact legal protections against discrimination based on disability status, including provisions that prevent discrimination in access to health insurance coverage and financial assistance for rehabilitation services. Legal protections ensure that individuals with disabilities have equal access to healthcare services and financial support, regardless of their disability status.

#### **Ensuring Transparency and Consumer Protections:**

**Transparent Pricing and Billing Practices:** Implement transparent pricing and billing practices for rehabilitation services, ensuring that individuals are aware of costs upfront and can make informed decisions about their healthcare without facing unexpected financial surprises. Transparent pricing and billing practices promote accountability and empower individuals to budget for their rehabilitation expenses effectively.

#### **Conclusion**

The current state of rehabilitation services in Iran reveals significant socioeconomic and geographical disparities that hinder equitable access for PWDs. Financial barriers and inadequate insurance coverage are primary challenges that need urgent attention. Addressing these issues through targeted policy reforms can significantly improve access to rehabilitation services and enhance the quality of life for PWDs in Iran.

#### **Authors' Contributions**

K.A. and S.S. conceptualized the study and drafted the manuscript. S.S. and B.K.M. critically revised the manuscript. S.S. also contributed to the literature review. All authors read and approved both the submitted and revised versions of the manuscript. Additionally, all authors agreed to be personally accountable for their contributions and to ensure that any questions related to the accuracy or integrity of any part of the work are appropriately investigated, resolved, and documented.

### **Ethical Considerations**

This study adhered to national research ethics guidelines and was approved by the Ethics Committee of Kermanshah University of Medical Sciences (Ref. No.: IR.KUMS.REC.1400.586). All methods were conducted in accordance with relevant guidelines and regulations.

### **Acknowledgment**

None.

### **Conflict of Interests**

The authors declare that they have no competing interests.

### **References**

1. Powden CJ, Hoch JM, Hoch MC. Rehabilitation and Improvement of Health-Related Quality-of-Life Detriments in Individuals With Chronic Ankle Instability: A Meta-Analysis. *J Athl Train.* 2017;52(8):753-65.
2. Lishner DM, PhD MR, Levine P, Patrick DJTJoRH. Access to primary health care among persons with disabilities in rural areas: a summary of the literature. 1996;12(1):45-53.
3. Shirazikah M, Mirabzadeh A, Sajadi H, Joghataei MT, Biglarian A, Mousavi T, et al. National survey of availability of physical rehabilitation services in Iran: A mixed methods study. *Electron Physician.* 2017;9(11):5778-86.
4. Soltani S, Takian A, Akbari Sari A, 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):508-15.
5. Soltani S, Moghadam MM, Amani S, Akbari S, Shiani A, Soofi M. Socioeconomic disparities in using rehabilitation services among Iranian adults with disabilities: a decomposition analysis. *BMC Health Services Research.* 2022;22(1):1449.
6. Soltani S, Arvan K, Karami Matin B, Ghoddoosinejad J, Moradi F, Salehiniya H. People with Disabilities and Financial Challenges in Access to Rehabilitation Services: Evidence of Socioeconomic Inequality in Iran. *Medical Journal of the Islamic Republic Of Iran.* 2024;38(1):202-9.
7. Rabanifar N, Hoseini MA, Abdi K. Exploring Barriers to Implementing Telerehabilitation from experiences of managers, policymakers, and providers of rehabilitation services in Iran: A Qualitative Study. *Med J Islam Repub Iran.* 2022;36:157.
8. Abdi K, Arab M, Rashidian A, Kamali M, Khankeh HR, Farahani FK. Exploring Barriers of the Health System to Rehabilitation Services for People with Disabilities in Iran: A Qualitative Study. *Electron Physician.* 2015;7(7):1476-85.
9. Najafi Z, Abdi K, Khanjani MS, Dalvand H, Amiri M. Convention on the rights of persons with disabilities: Qualitative exploration of barriers to the implementation of articles 25 (health) and 26 (rehabilitation) in Iran. *Med J Islam Repub Iran.* 2021;35:10.
10. Soltani S, Moghadam MM, Amani S, Akbari S, Shiani A, Soofi M. Socioeconomic disparities in using rehabilitation services among Iranian adults with disabilities: a decomposition analysis. *BMC Health Serv Res.* 2022;22(1):1449.
11. Walsh B, Cullinan J, Biology H. Decomposing socioeconomic inequalities in childhood obesity: Evidence from Ireland. *Econ Hum Biol.* 2015;16:60-72.
12. Wagstaff A. The bounds of the concentration index when the variable of interest is binary, with an application to immunization inequality. *Health economics.* 2005;14(4):429-32.
13. Wagstaff A, Van Doorslaer E, Watanabe N. On decomposing the causes of health sector inequalities with an application to malnutrition inequalities in Vietnam. *J Econom.* 2003;112(1):207-23.