Original Article

Access this article online

Quick Response Code:

Website: www.jehp.net

DOI: 10.4103/jehp.jehp_63_23

# Barriers to financial access of disabled people to health services in rural areas: A case study of Iran

**Lida Shams[1], Taha Nasiri[2,3], Tahere Darvish[4], Sayyed-Morteza Hosseini-Shokouh[2,3,5], Mohammad Meskarpour Amiri[2]**

*[1]Department of Health Policy and Management, School of Public Health and Safety, Shahid Beheshti University of Medical Sciences, Tehran, Iran, [2]Health Management Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran, [3]Department of Health Services Management, Faculty of Health, Baqiyatallah University of Medical Sciences, Tehran, Iran, [4]Department of Community Health Education, Virtual School of Medical and Management, Shahid Beheshti University of Medical Sciences, Tehran, Iran, [5]Health Management and Economics Research Center, Health Management Research Institute, Iran University of Medical Sciences, Tehran, Iran*

**Address for correspondence:**
Dr. Sayyed-Morteza Hosseini-Shokouh, Department of Health Services Management, Faculty of Health, Health Management Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran.
E-mail: hosainysh.morteza@gmail.com

Received: 14-01-2023
Accepted: 29-04-2023
Published: 28-03-2024

**Abstract:**

**BACKGROUND:** People with disabilities (PWDs) account for a significant percentage of the world's population, with a higher prevalence in less developed countries. Access to healthcare services is the main component of health systems performance, with lower access for PWDs living in rural areas. The current study aimed to investigate PWD's access to healthcare services in rural areas of Iran and, secondly, factors that contribute to this issue.

**MATERIALS AND METHODS:** Following a cross-sectional design, the current descriptive-analytical study is performed in the north of Iran. Using the quota sampling technique, 471 PWDs were recruited. Data were collected using a valid and reliable questionnaire, covering three dimensions of access, by face-to-face interview. Data analysis was administered using central tendency indicators and multiple regression by SPSS version 17. Statistical significance was considered when the *P* value <0.05.

**RESULTS:** The mean score of PWD's access to healthcare services for dimensions of utilization, availability, and affordability was 8.91 (±6.86), 14.54 (±2.3), and 51.91 (±8.78), indicating very low, low, and moderate levels of access. All three regression models were significant ($P < 0.05$), and variables of gender, age, marital status, education level, residence status, the income of the household head, receiving financial aid, and house area showed a significant effect ($P < 0.05$).

**CONCLUSION:** This study demonstrated the seriousness of paying attention to PWD's financial access to healthcare services, particularly in rural areas of Iran. Hence, policymakers should better focus on this problem, mainly regarding accessibility and utilization and factors that result in inequalities.

**Keywords:**

Access, healthcare services, Iran, people living with disability

## Introduction

As a complicated concept, access to healthcare services is the main component of health systems performance.[1,2] Etymologically, access indicates the method or possibility of getting near a place to utilize a service or good. Within healthcare, access is defined as an opportunity to utilize a service according to the needs.[3] In other words, access is the right to use a service at the right time and place, with no restriction.[4]

While there has been a significant improvement in access to healthcare in recent years,[1] the fact that more than 8.6 million deaths, occurred in 137 countries, deemed preventable in 2016, indicates the necessity of ensuring access to healthcare services, specifically in low- and middle-income countries.[5] Meanwhile, people with disabilities (PWDs) may face particular barriers to access healthcare services, particularly regarding their functional limitations (e.g., using public transportations).[6]



**How to cite this article:** Shams L, Nasiri T, Darvish T, Hosseini-Shokouh SM, Meskarpour Amiri M. Barriers to financial access of disabled people to health services in rural areas: A case study of Iran. J Edu Health Promot 2024;13:89.

Nearly 15% of the world's population, or an estimated 1 billion people, suffer from a type of disability.[7] The evidence emphasizes the difficulties of PWDs in access to healthcare services, with more severe barriers in developing countries,[8] mainly due to higher rates of disability and lower socioeconomic status of PWDs. A systematic review study showed that, apart from financial and structural problems, women with disabilities are faced with several socio-cultural barriers.[7] PWDs living in rural and remote areas face more severe barriers in accessing healthcare services, with long traveling distances and consequent costs as the most critical challenge.[9] The health system in rural areas is based on referral and family doctor systems, and patients receive services based on rural insurance coverage.[10] Factors such as weakness of the health insurance system, low purchasing power, lack of sufficient financial support, and transportation costs are the main barriers to access to healthcare services in countries such as Iran.[11] Furthermore, nearly 30% of nondisabled people and 50% of PWDs cannot afford health expenditures.[12] Meanwhile, they are more likely to face catastrophic health expenditures by 50%.[13]

Disability prevalence is around 13 per 10,000 population in Iran.[14] Recent qualitative studies mentioned financial factors (accessibility, affordability, and utilization) as the main barrier for using healthcare services by Iranian PWDs.[11] As literature is silent on factors that contribute to PWD's access to healthcare services in rural areas of Iran and the significant contribution of this factor in achieving universal health coverage,[1] the current study aimed to investigate PWD's access to healthcare services in rural areas of Iran and, secondly, factors that contribute to this issue.

## Materials and Methods

### Study design and setting

In this descriptive-analytical study, a total of 14 comprehensive rural healthcare centers, with a population of >62,000, in the Noor county of Mazandaran province, Northern Iran, were investigated in 2020.

### Study participants and sampling

Considering the global prevalence rate of 15% for disability, the study population comprises 9,000 PWDs living in the catchment area of the Noor Healthcare Network.

Sampling was performed by cluster sampling. The catchment area of CRHCs contains a main village and others. By considering this issue, 47,257 cases were selected from the main villages and 15,209 from other villages. Samples were selected in proportion to the total population of the village using random selection sampling. The sample size was estimated as 471 subjects, based on the prevalence of 15%,[7] d of 0.044, and 95% confidence interval. The World Health Organization's definition of disability was considered in this study as follows: inability to perform daily activities during the past 6 months, including prolonged standing of more than 30 minutes, family care, learning a new skill (e.g., traveling to a new location), participation in social activities, such as celebrations and religious activities, being emotionally affected by health issues, difficulty in concentrating for more than 10 minutes, difficulty in walking a long distance (e.g., 1 kilometer), problems with bathing and dressing, problems with talking to strangers, and difficulty in maintaining friendly relations.[15] Healthy cases, those younger than 16 years, and pregnant women were excluded.

Participants were selected using multi-stage sampling. For this purpose, initially, 14 Comprehensive Rural Healthcare Centers were categorized into four clusters. Then, proportioned to the catchment population, the share of each center from the total sample size was determined. Finally, participants were selected using a random sampling technique. Afterward, data were collected using face-to-face interviews.

### Data collection tool and technique

Data were collected using a researcher-developed questionnaire, which comprised two sections: (a) Demographic information and (b) Seven dimensions of access, including utilization, affordability, availability, geographical access, physical access, temporal access, and acceptability, according to Soltani *et al*.'s study.[11] As investigating all dimensions in one article is not feasible, only three dimensions of utilization (seven items), affordability (eight items), and availability (eight items), which cover financial dimensions of access, are included in this study. A five-point Likert scale was used to calculate the final score, ranging from strongly low to high.

The validity and reliability of the administered questionnaire were evaluated. Face validity was evaluated using expert opinions and a pilot study. Content Validity Index (CVI) was calculated to determine content validity using the opinions of eight experts and the Lawshe method. The Cronbach alpha method was used to assess reliability using a sample of 30 PWDs. The Cronbach's alpha coefficient value for each dimension of utilization, availability, and affordability was 0.81, 0.72, and 0.80, respectively.

Data analysis was administered using central tendency indicators (mean, standard deviation, etc.) and multiple regression, to investigate the association between background factors and demographic

information with dimensions of access, by SPSS version 17. Statistical significance was considered when the *P* value <0.05.

### Ethics considaration

This study is a part of a thesis proposal for M.Sc. Also, the research purpose and methodology were subjected to scrutiny by the Internal Research Ethics Committee of Shahid Beheshti University of Medical Sciences (code: IR.SBMU.SME.REC.1397.004). All methods used in this study were performed in accordance with the relevant guidelines and regulations.

## Results

Of all participants, 281 (60%) were female, mostly older than 60 years (n = 252; 54.2). Also, 200 (42.6%) participants were married, 357 illiterate (76.1%), and mostly unemployed (n = 432; 92.5%). In addition, for nearly 90%, the monthly income of the head of the household was less than 20 million Rial. Meanwhile, 20% of participants were heads of the households. Eighty-two percent were receiving financial aids. For 54% of subjects, the age of disability was higher than 60 years. Physical disability was the most common form (78%). Ninety-three percent had basic health insurance coverage, and 78% were subscribed to a complementary health insurance fund. In addition, 95% of them owned a house, mostly (70%) with an area of 50 to 100 $m^2$ [Table 1].

The mean score of healthcare services utilization was 8.91 ± 6.86; 296 subjects (63%) evaluated this dimension as strongly low and only four (1%) selected a high score. For the dimension of availability, the mean score was 14.54 ± 2.3, the majority of subjects evaluated this dimension as low (n = 301; 64%) and only two mentioned as high availability. Eventually, the mean score of the affordability dimension was 51.91 ± 8.78. Two hundred and eighty (59.7%) subjects evaluated this dimension as moderate and six (1.3%) as strongly low [Table 2].

The results of the regression analysis indicated the significant contribution of utilization (F = 2.351; *P* = 0.007), availability (F = 4.812; *P* = 0.001), and affordability (F = 2.129; *P* = 0.016). Also, being married presented a significant impact on utilization (*P* < 0.05). Variables of education level, house ownership, financial aid, and residency area presented a positive effect on the availability of services, and a reverse effect was found for the income of the head of the household (*P* < 0.05). Meanwhile, gender (female), older age, and being head of the household had a positive effect on affordability (*P* < 0.05) [Table 3].

## Discussion

This study demonstrated the low level of PWD's access to healthcare services in rural areas of Iran. In addition, background factors and socio-financial determinants, including gender, age, marital status, education level, residence status, the income of the head of the household, financial aid, and residency area, presented a significant effect on financial access.

Concerning the availability dimension, more than 70% of PWDs evaluated this dimension as strongly low and low, with the highest burden on health posts. PWDs also require rehabilitative services and psychological support, which are not available in health posts or other rural healthcare centers. A study conducted on caregivers of PWDs in Australia also reported similar findings, while emphasizing the necessity of addressing traveling a long distance and long waiting times, not to mention high expenditures.[11] For 63% of PWDs, the utilization rate was strongly low, with general physicians as the primary provider (67.8%). As rehabilitative and psychological services are primarily provided by the private sector, particularly in small cities and counties, it can be argued that either PWDs are deprived of such services or pay high costs and wait for long hours.[8,11] Concerning families' experiences with a PWD member, Raeis-Dana *et al*.[16] reported shortages in psychological and

**Table 1: Demographic characteristics of participants**

| Variables | Utilization | | | Availability | | | Affordability | | |
|---|---|---|---|---|---|---|---|---|---|
| | Beta | T | *P* | Beta | T | *P* | Beta | T | *P* |
| Gender | -0/653 | -0/651 | 0/516 | 0/476 | 1/719 | 0/087 | 2/709 | 2/264 | 0/025 |
| Age | 0/055 | 1/569 | 0/118 | 0/019 | 1/937 | 0/054 | 0/096 | 2/308 | 0/022 |
| Marital status | -1/268 | -2/99 | 0/003 | -0/069 | -0/605 | 0/546 | 0/186 | 0/378 | 0/706 |
| Education level | 0/051 | 0/061 | 0/951 | -0/596 | -2/495 | 0/013 | -0/809 | -0/820 | 0/413 |
| Employment status | 0/648 | 0/342 | 0/733 | 0/706 | 1/349 | 0/179 | -0/670 | -0/295 | 0/768 |
| House ownership | -0/378 | -0/538 | 0/591 | 0/457 | 2/367 | 0/019 | -0/808 | -0/965 | 0/336 |
| Income of the head of the household | 2/$^{8}$342 | 0/033 | 0/973 | 6/$^{7}$284 | -3/312 | 0/001 | 3/$^{7}$384 | 0/411 | 0/681 |
| Houshold | 0/012 | 0/022 | 0/983 | -0/071 | -0/464 | 0/643 | -1/319 | -1/984 | 0/048 |
| Financial aid | 1/596 | 1/077 | 0/283 | 1/225 | 3/050 | 0/003 | 0/890 | 0/511 | 0/610 |
| Primary health insurance coverage | -0/735 | -0/428 | 0/669 | -0/223 | -0/471 | 0/638 | -2/858 | -1/392 | 0/165 |
| Complimentary health insurance coverage | -0/849 | -0/705 | 0/482 | 0/185 | 0/564 | 0/574 | 1/911 | 1/342 | 0/181 |
| Residence area | 0/020 | 1/038 | 0/300 | 0/029 | 5/358 | 0/001 | 0/044 | 1/889 | 0/060 |

**Table 2: Mean and distribution of access to healthcare services**

| Variable | | Sub-Group (Score) | *n* | % | Mean | SD |
|---|---|---|---|---|---|---|
| Dimensions of access to healthcare services | Utilization | Strongly low zero to 10 | 296 | 63/1 | 8/91 | 6/86 |
| | | Low, 10 to 20 | 133 | 28/3 | | |
| | | Moderate, 20 to 30 | 24 | 5/1 | | |
| | | High, >30 | 4 | 1 | | |
| | | No response | 12 | 2/5 | | |
| | | Sum | 469 | 100 | | |
| | Availability | Strongly low zero to 10 | 29 | 6/1 | 14/54 | 2/3 |
| | | Low, 10 to 15 | 301 | 64/1 | | |
| | | Moderate, 15 to 20 | 134 | 28/5 | | |
| | | High, >20 | 2 | 0/5 | | |
| | | No response | 6 | 1/3 | | |
| | | Sum | 469 | 100 | | |
| | Affordability | Strongly low, <30 | 6 | 1/3 | 51/91 | 8/78 |
| | | Low, 30 to 45 | 98 | 20/9 | | |
| | | Moderate, 45 to 60 | 280 | 59/7 | | |
| | | High, >60 | 85 | 18/1 | | |
| | | No response | 0 | 0 | | |
| | | Sum | 469 | 100 | | |

**Table 3: Results of the regression analysis of various dimensions of access to healthcare**

| Variables | Utilization | | | Availability | | | Affordability | | |
|---|---|---|---|---|---|---|---|---|---|
| | Beta | T | *P* | Beta | T | *P* | Beta | T | *P* |
| Gender | -0/653 | -0/651 | 0/516 | 0/476 | 1/719 | 0/087 | 2/709 | 2/264 | 0/025 |
| Age | 0/055 | 1/569 | 0/118 | 0/019 | 1/937 | 0/054 | 0/096 | 2/308 | 0/022 |
| Marital stauts | -1/268 | -2/99 | 0/003 | -0/069 | -0/605 | 0/546 | 0/186 | 0/378 | 0/706 |
| Education level | 0/051 | 0/061 | 0/951 | -0/596 | -2/495 | 0/013 | -0/809 | -0/820 | 0/413 |
| Employment status | 0/648 | 0/342 | 0/733 | 0/706 | 1/349 | 0/179 | -0/670 | -0/295 | 0/768 |
| House ownership | -0/378 | -0/538 | 0/591 | 0/457 | 2/367 | 0/019 | -0/808 | -0/965 | 0/336 |
| Income of the head of the household | 2/$^{8}$342 | 0/033 | 0/973 | 6/$^{7}$284 | -3/312 | 0/001 | 3/$^{7}$384 | 0/411 | 0/681 |
| Houshold | 0/012 | 0/022 | 0/983 | -0/071 | -0/464 | 0/643 | -1/319 | -1/984 | 0/048 |
| Financial aid | 1/596 | 1/077 | 0/283 | 1/225 | 3/050 | 0/003 | 0/890 | 0/511 | 0/610 |
| Primary health insurance coverage | -0/735 | -0/428 | 0/669 | -0/223 | -0/471 | 0/638 | -2/858 | -1/392 | 0/165 |
| Complimentary health insurance coverage | -0/849 | -0/705 | 0/482 | 0/185 | 0/564 | 0/574 | 1/911 | 1/342 | 0/181 |
| Residence area | 0/020 | 1/038 | 0/300 | 0/029 | 5/358 | 0/001 | 0/044 | 1/889 | 0/060 |

supportive services as a significant barrier. Noteworthy, the WHO emphasized more equitable access of PWDs to rehabilitative and psychological services through public centers.[17] Family physician services have been established to manage diseases and avoid unnecessary services. Since the family physician provides and manages the services needed by patients for a wide range of care, the result of their activities is to increase access to health services for disabled patients, increase the quality of services, reduce unnecessary costs, and provide needed services. For disabled people, continuity of care and timely access to care are important.[18]

The Iran health system's extended health network has resulted in high rates of PWDs identification, particularly in rural areas. However, there is no comprehensive plan to provide affordable and in-home services to them. In this line, 68% of PWDs reported not using in-home services. On the other hand, they receive such services from the private sector while paying high costs. In addition, 80% of subjects declared unavailability of telephone or internet scheduling or telecommunication services. About 60% of participants are deprived of health services due to the lack of information, revealing a significant challenge for PWDs. Lack of appropriate communication strategies has intensified this challenge.[16] Some studies mentioned that low awareness of health staff about the health needs of PWDs and lack of comprehensive training programs are major factors contributing to this issue.[16] Furthermore, restrictions imposed to control the Covid-19 pandemic, including canceling several elective services, resulted in declined access of PWDs to healthcare services.[6] These issues indicate the necessity of strengthening electronic systems required to provide supportive and psychological services.

Concerning affordability of healthcare services, 80% of participants mentioned moderate and low levels;

meanwhile, 79% of them did not have complementary health insurance coverage. In a study on reasons for not receiving healthcare services, Rezapour *et al*.[19] mentioned high costs, long waiting times, self-medication, long traveling distance, not having insurance coverage, and unawareness about healthcare centers. Addressing this issue requires particular attention of policymakers to complementary health insurance coverage of PWDs, which plays a significant role in meeting their unmet health needs, translating into improved health status and living conditions.

Utilization of specialized services and obtaining prescribed medicines are other important dimensions of financial access to healthcare services. In this regard, 33% of PWDs declared borrowing money to pay their health expenditures. Similar results are reported by studies performed in South Africa and by United Nations.[8] A study in Malawi also listed financial barriers as one of the main reasons for disabled people not having access to health services in rural areas. Also, the high cost of medicine has been listed as another factor of low access for the disabled.[20]In addition, 10% of them declared selling their commodities. Meanwhile, PWDs and their caregivers or companions faced a 24–56% decline in income due to referring to healthcare centers. Two factors should be considered when interpreting this finding: (a) access to specialized services is a challenging issue in rural areas, similar to Australia[11] and (b) the price and income elasticity of drug demand is less than one in Iran, which indicates the necessity of receiving such services.[21-23]

Lack of primary and complementary health insurance coverage translates into increased out-of-pocket payments (OOP) and a low tendency to utilize healthcare services. Meanwhile, primary health insurance plans in Iran do not provide appropriate coverage for services and drugs related to PWDs, which is consistent with some previous studies.[24,25] In some countries, such as Canada and the United States, special benefit packages are developed for covering services related to PWDs, including medicines, medical devices, transportation, and even guide dogs.[26,27]

According to the findings of the regression model, benefiting from primary and complementary health insurance coverage has a significant impact on all three dimensions of financial access, which was not statistically significant for each of them. Similar results are reported by Rezapour *et al*.[19] and Sharifian-Sani.[28] There is evidence indicating the positive effect of benefiting from health insurance coverage on the utilization of healthcare services among the poor.[29,30] Definitely, health insurance coverage declines OOP, leading to increased utilization. The variable of age presented a significant association with financial access. Falkingham *et al*.[31] showed that utilization of healthcare services differs based on age so that younger and older individuals have higher levels of utilization. In addition, education level also presented a significant effect on access to healthcare services, particularly in the dimension of availability.

Nevertheless, Rezapour *et al*.[19] found no significant association between the education level of the household and access to required healthcare services. Evidence shows a significant association between education and utilization of healthcare services up to a diploma and a nonsignificant association for those with a university degree.[24] The residency area also presented a significant effect on access to healthcare services, particularly the availability dimension, which can be attributed to the household's type of residence and economic status. This is consistent with Rezapour *et al*.,[19] in which homeowner households had a higher chance of meeting their need (by 1.97 times) than others.

Income and financial aid positively affected access to healthcare services, particularly regarding the availability dimension. In a study in China, Ma and McGhee mentioned economic status (low income) as the variable with the highest impact on health-related quality of life among all socioeconomic factors.[32] Ataguba, which intended to investigate income inequality in South Africa, mentioned disappropriate concentration of good health among the rich compared to the poor.[33] Income is the most important determinant of health and is the prerequisite for access to other factors affecting health, such as housing, nutrition, and education. Low-income and poor people often have low living standards, translating into a low financial ability to afford health expenditures, inadequate nutrition, and low education levels.

Low income reduces a person's searching behavior, leading to declined access to healthcare services.[34] On the other hand, income, in addition to indicating social prestige, is also an indicator of access to various resources such as financial ability to obtain health insurance coverage and utilization of healthcare services.[35,36]

## Conclusion

This study demonstrated PWDs are faced several barriers in accessing healthcare services, including lack of a comprehensive benefit package and complementary health insurance coverage, low quality of services, unavailability of in-home services, challenges in accessing specialized services, and obtaining prescribed medicines. These issues indicate the necessity of planning to improve PWDs' access to healthcare services, including improving pooling of resources related to

PWDs, developing need-based benefit packages, and using the co-payment mechanism. As a significant policy goal, improved access to healthcare services can decline the negative impacts of poverty and inequality. However, the identification of PWD's challenges in accessing healthcare services indicates the progress toward achieving this goal. Health policymakers should identify households with a PWD member to improve the financial access to healthcare services, particularly those living in deprived areas, those younger than 18 and older than 60 years old, and those suffering from chronic diseases.

## Authors' contributions

All authors participated in this study. Sayyed-Morteza Hosseini-Shokouh and lida shams wrote the article. Lida Shams and Tahere Darvish participated in the research work. Lida Shams is the lead of the research work. Taha Nasiri and Mohammad Meskarpour Amiri contributed to revising the article.

## Consent for publication

All the authors have read the article and have no problem with printing it and agree to publish it in this format**.**

## Acknowledgments

Thanks to everyone who helped us write this article.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

## References

1. Cu A, Meister S, Lefebvre B, Ridde V. Assessing healthcare access using the Levesque's conceptual framework– a scoping review. Int J Equity Health 2021;20:116. doi: 10.1186/s12939-021-01416-3.
2. Clemente KAP, Silva SVD, Vieira GI, Bortoli MC, Toma TS, Ramos VD, *et al*. Barriers to the access of people with disabilities to health services: A scoping review. Rev Saude Publica 2022;56:64. doi: 10.11606/s1518-8787.2022056003893.
3. Levesque JF, Harris MF, Russell G. Patient-centred access to health care: Conceptualising access at the interface of health systems and populations. Int J Equity Health 2013;12:18. doi: 10.1186/1475-9276-12-18.
4. Waters HR. Measuring equity in access to health care. Soc Sci Med 2000;51:599-612.
5. Kruk ME, Gage AD, Joseph NT, Danaei G, García-Saisó S, Salomon JA. Mortality due to low-quality health systems in the universal health coverage era: A systematic analysis of amenable deaths in 137 countries. Lancet 2018;392:2203-12.
6. Lebrasseur A, Fortin-Bedard N, Lettre J, Bussieres E, Best K, Boucher N, *et al*. Impact of COVID-19 on people with physical disabilities: A rapid review. Disabil Health J 2021;14:101014. doi: 10.1016/j.dhjo.2020.101014.
7. Karami Matin B, Williamson HJ, Kazemi Karyani A, Rezaei S, Soofi M, Soltani S. Barriers in access to healthcare for women with disabilities: A systematic review in qualitative studies. BMC Women's Health 2021;21:44.
8. Vergunst R, Swartz L, Hem KG, Eide AH, Mannan H, MacLachlan M, *et al*. Access to health care for persons with disabilities in rural South Africa. BMC Health Serv Res 2017;17:741. doi: 10.1186/s12913-017-2674-5.
9. Gallego G, Dew A, Lincoln M, Bundy A, Chedid RJ, Bulkeley K, *et al*. Access to therapy services for people with disability in rural Australia: A carers' perspective. Health Soc Care Community 2017; 25:1000-10.
10. Shams L, Zamani Fard M, Nasiri T, Mohammadshahi M. Community health workers (Behvarz) in primary health care: A qualitative inductive content analysis of challenges. Aust J Prim Health 2023. doi: 10.1071/PY22052.
11. 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;48:508-15.
12. World Health Organization. Disability and Health. WHO Fact Sheets. Available from: https://www.who.int/news-room/fact-sheets/detail/disability-and-health. [Last accessed on 2021 26 Sep].
13. Regional Office for Euroup, World Health Organization. Better health for people with disability. World Health Organization. Available from: https://www.euro.who.int/en/health-topics/Life-stages/disability-and-rehabilitation/multimedia/infographic-better-health-for-people-with-disabilities. [Last accessed on 2021 Sep 26].
14. Soltani S, Khosravi B, Salehiniya H. Prevalence of disability in Iran. Iran J Public Health 2015;44:1436-7.
15. World Health Organization. World Report on Disability 2011. Geneva: WHO Press; 2011.
16. Raeis-Dana M, Tabatabaei-Nia M, Kamali M, Shafaroudi N. From diagnosis to coping: A journey with parents in the course of the disability of their children. Arch Rehabil 2009;10:42-51.
17. MacLachlan M, Mannan H. The world report on disability and its implications for rehabilitation psychology. Rehabil Psychol 2014;59:117-24.
18. Kazemian M, Kavian Telouri F. Assesment of access to health care in Family Physician Program by performance criteria of health care continuity and timely access in Gorgan. Daneshvar Medicine 2020;23:61-72.
19. Rezapour A, Mahmoudi M, Abolghasem Gorji H, Bagheri Faradonbeh S, Asadi S, Yusef Zadeh N, *et al*. A survey of unmet health needs and the related barriers to access them. J Health Admin 2014;17:87-98.
20. Harrison JAK, Thomson R, Banda HT, Mbera GB, Gregorius S, Stenberg B, *et al.* Access to health care for people with disabilities in rural Malawi: What are the barriers? BMC Public Health 2020;20:833. doi: 10.1186/s12889-020-08691-9.
21. Rahbar A, Barouni M, Bahrami M, Saber Mahani A. Estimation of drug demand function in Iranian urban population through household budget, 1990-2011. The Journal of Toloo-e-behdasht. 2013;12:44-58.
22. Ebadifard Azar F, Rezapoor A, Rahbar A, Hosseini Shokouh SM, Bagheri Faradonbeh S. Estimation of the function of medicine demand in Islamic Republic of Iran. J Mil Med 2013;15:163-8.
23. Soleimani Movahed M, Rezapour A, Vahedi S, Abolghasem Gorji H, Bagherzadeh R, Nemati A, *et al*. The impact of inflation and its uncertainty on pharmaceutical prices: Evidence from Iran. Iranian J Pharm Res 2021;20:94-101.
24. McIntyre D, Mooney G. The economics of health equity: Cambridge University Press; 2009. England.
25. Peters DH, Garg A, Bloom G, Walker DG, Brieger WR, Hafizur Rahman M. Poverty and access to health care in developing countries. Ann N Y Acad Sci 2008;1136:161-71.
26. Ministry of Community and Social Services. 2017. Available from:

http://www.mcss.gov.on.ca/en/mcss/programs/social/odsp/income_support/IS_Eligibility.aspx.
27. Centers for Medicare and Medicaid Services (CMS). 2017. Available from: https://www.medicaid.gov/medicaid/benefits/list-of-benefits/index.html.
28. Sharifian-Sani M, Sajjadi H, Tolouei F, Kazem-Nezhad A. Girls and women with physical disabilities: Needs and problems. jrehab 2006;7:41-8.
29. Saeed BI, Abdul-Aziz AR, Zhao X. Assessing the influential factors on the use of healthcare: Evidence from Ghana. Int J Bus Soc Sci 2013;4:12-20.
30. Trujillo AJ, Portillo JE, Vernon JA. The impact of subsidized health insurance for the poor: Evaluating the Colombian experience usingpropensity score matching. Int J Health Care Finance Econ 2005;5:211-39.
31. Falkingham J, Akkazieva B, Baschieri A. Trends in out-of-pocket payments for health care in Kyrgyzstan, 2001–2007. Health Policy Plann 2010;25:427-36.
32. Ma X, McGhee SM. A cross-sectional study on socioeconomic status and health-related quality of life among elderly Chinese. BMJ Open 2013;3:e002418. doi: 10.1136/bmjopen-2012-002418.
33. Ataguba JE, Day C, McIntyre D. Explaining the role of the social determinants of health on health inequality in South Africa. Glob Health Action 2015;8:28865. doi: 10.3402/gha.v8.28865.
34. Adames PMDC. Healthy, wealthy, and wise? Tests for direct casual paths between health and socioeconomic status. J Econom 2003;112:3-56.
35. Williams DR. Socioeconmic differentials in health: A review and redirection. SPQ 1990;53:81-99.
36. Harwood GA, Salsberry P, Ferketich AK, Wewers ME. Cigarette smoking, socioeconomic status, and psychosocial factors: Examining a conceptual framework. PHN 2007;24:361-71.