

Access barriers to medical facilities for people with physical disabilities: the case of Peru

Barreras de acceso a centros de salud para personas con discapacidad física: el caso de Perú

Barreiras de acesso aos serviços de saúde para pessoas portadoras de deficiência física: o caso peruano

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Abstract

People with disabilities (PWD) face several challenges accessing medical services. However, the extent to which architectural and transportation barriers impede access to healthcare is unknown. In Peru, despite laws requiring that buildings be accessible for PWD, no report confirms that medical facilities comply with such regulations. Thus, we aim to provide an association between these barriers and access to medical facilities. Data from a Peruvian disability survey were analyzed. Participants were 18 years of age and older people who reported having a physical disability. Accessibility was defined by reported struggles accessing medical facilities (health or rehabilitation centers). Absence of ramps, handrails, elevators, adapted bathrooms, and information counters in medical facilities were reported as architectural barriers. The transportation barriers analyzed included struggles using buses or trains. Poisson regression models with robust variance were used to estimate prevalence ratios (PR) and to control for confounding variables. 20,663 participants were included, their mean age was 66.5 years and 57.5% were females. Architectural and transportation barriers reported were 40% and 61%, respectively. All barriers reported were more prevalent in rural compared to urban areas ($p < 0.001$). Inadequacy of ramps, handrails, and adapted elevators and bathrooms were associated with limited use of rehabilitation centers ($p < 0.001$) but not of health centers ($p > 0.05$). Architectural and transportation barriers represent a hindrance to seeking treatment at rehabilitation centers. Actions to improve this situation are needed.

Architectural Accessibility; Health Services Accessibility; Transportation; Disability Evaluation

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Introduction

Disability remains a major global health issue. Worldwide, around 15% of people have some physical or cognitive limitation^{1,2}, and about 80% of people with disabilities (PWD) are estimated to live in low- and middle-income countries (LMICs)¹. Given current epidemiological transitions and increased lifespan, such estimates are expected to increase globally by 2020³. Healthcare access and utilization are especially important for PWD, as they experience poorer health outcomes than their non-disabled counterparts for the same conditions^{4,5}; consequently, their costs for medical care can be up to four times higher⁶, and their use of health and long-term care services is often beyond basic healthcare needs⁷.

The 2006 United Nations (UN) Convention on the Rights of Persons with Disabilities (CRPD) names the human right to obtain the highest quality healthcare without discrimination as among those that must be assured to PWD^{8,9}. Sharing some principles with the CRPD, the American with Disabilities Act (ADA) of 1990¹⁰ outlines standard accessibility statements to determine whether locations, including medical facilities, are suitable for PWD. Although these international policies exist, few reports indicate their fulfillment in medical facilities outside of the United States^{11,12,13}. Moreover, PWD often face several challenges in accessing and utilizing healthcare services, including lack of health insurance, unemployment, or dependence on caregivers^{14,15}. Furthermore, prior studies have recognized that absence of transportation to hospitals, as well as wheelchair inaccessibility in hospitals, represent critical barriers to PWD's access and utilization of healthcare^{1,16,17}.

Accessibility, defined by the UN as "giving equal access to everyone"⁹, involves not only providing access to facilities but also to services. In the limited literature on disability in LMICs, healthcare accessibility and barriers mostly have been measured in terms of distance to geographical location of medical facilities¹⁸. Other measures from qualitative assessments identify structural or environmental barriers such as lack of ramps and handrails in buildings or lack of adapted transportation in the locality^{19,20,21}. Absence of transport, unavailability of services, inadequate drugs or equipment, and costs were found to be the four major perceived barriers for accessing health services among individuals with disability in four African countries¹⁶. Finally, attitudinal barriers, discrimination and language barriers have also been ascertained as access barriers to healthcare^{22,23}. While such barriers have been recognized as factors hindering access to healthcare, the literature remains scarce regarding the presence of architectural or transportation barriers in medical facilities. Determining these main physical barriers to access can guide the development of tangible policy strategies that enable PWD to appropriately use healthcare services.

In Peru, which is a middle-income country, a survey from the Peruvian Institute of Statistics and Informatics (INEI) produced a 5% disability prevalence estimate²⁴. While the Peruvian norm dictates that PWD in Peru should live without discrimination and have equal rights, evidence of these accomplishments is still lacking²⁵. Conveniently, an open-access survey conducted nationwide contains information regarding access to healthcare, particularly awareness of architectural and transportation barriers.

Thus, this study aims to determine the association between the presence of architectural and transportation barriers and healthcare accessibility for people with physical disabilities in Peru, based on self-reports from the survey.

Methods

Study design and setting

We used data from a cross-sectional national survey: *Peruvian Specialized National Disability Survey (Encuesta Nacional Especializada de Discapacidad – ENEDIS)*. ENEDIS was part of an initiative of the Peruvian government to estimate the prevalence of disability and to identify main needs of PWD as an initial step in ensuring compliance with the CRPD²⁴. This survey occurred in 2012 and was directed and funded by the Peruvian Council for the Integration of People with Disability (CONADIS) and the data is publicly available at <http://inei.inei.gob.pe/microdatos>.

In this study, we are using the term “health center” to broadly refer to hospitals, primary care centers, and private clinics. The term “rehabilitation center” refers to facilities that offer physical and occupational therapy services only; these are exclusively private facilities in Peru. Both settings charge fees for service, although insurance might cover some services in any type of facility.

Data collection

Data from ENEDIS were collected in 2012 by personnel from the INEI using a two-stage sampling strategy. Strata were defined by regions (25 regions), and clusters of each region were considered the primary sampling units. PWD were identified as the secondary sampling unit following a census of each cluster. Expansion factors were calculated separately by area of residence (rural and urban).

Participants answered a two-phase questionnaire. In the first phase, people were asked whether they have a disability using a modified version of the *Washington Group on Disability Statistics Question Set*, which measures six forms of disability (physical, hearing, seeing, communication, cognitive and self-care)²⁶. In this questionnaire, self-care disability was not included. A second questionnaire, only to people who reported having at least one disability, was then conducted to collect information about education, work, disability characteristics, accessibility, and use of healthcare services.

Participants

For this study, we included in ENEDIS respondents 18 years of age and older who reported having a physical disability, which was formally defined using the question: “Do you have permanent struggle walking or climbing stairs?” according to the *Washington Group on Disability Statistics*²⁶. We restricted our analysis to people with physical disabilities because they are more keenly aware of architectural barriers than people with other types of disabilities are.

Variables

- **Accessibility and use of medical facilities**

ENEDIS participants answered whether there were medical facilities (i.e. health or rehabilitation centers) in their locality (yes/no), whether they usually went to these facilities for treatment (yes/no), and whether they struggled accessing them (yes/no). Accessibility was measured with the third question only if the participants answered affirmatively to the first two questions. Finally, regarding use of medical facilities, participants reported whether they go to health or rehabilitation centers to receive healthcare.

- **Architectural barriers**

PWD were asked about the existence of ramps, handrails, adapted bathrooms, adapted elevators, and information counters in the medical facilities where they receive care (i.e. “Do the medical facilities where you go have...”). We counted each answer as a binary variable (yes/no) and considered absence of each of the above infrastructure to be an architectural barrier.

- **Struggle using public transportation**

ENEDIS asked PWD: “Do you struggle using... (any of these modes of transportation)?” Modes of transportation evaluated in the survey included: buses, trains, planes, boats, and animals. We considered public buses, metropolitan buses, and electric trains to be public transportation and used the reports about struggles (yes/no) using each of them.

- **Demographic variables**

We presented information about age, sex (male/female), educational level (no education/primary/secondary/higher), marital status (not married/married), and economic status (deprivation index divided into lowest/middle/highest tertiles). Deprivation index was calculated based on household assets²⁷ and data available in the survey.

- **Other variables**

We controlled for the number of disabilities (1/2/3+), area of residence (rural/urban), and possession of health insurance (yes/no), as they may act as confounding variables in the analyses^{14,15}. Rural areas are territories with 100 or less properties outside capital cities or districts according to local definitions²⁸.

Statistical analysis

Stata 13 software (<https://www.stata.com>) was used for all analyses. Numerical variables were summarized using means and standard deviations. All categorical variables were presented in frequencies and percentages. Descriptive data were presented by area of residence (rural/urban) to highlight any geographic disparities in demographics or PWD access to healthcare.

We used appropriate survey analysis techniques to deal with the multistage sampling. Thus, the means and percentages presented were weighted.

We calculated prevalence ratios (PR) with 95% confidence intervals (95%CI) to assess the effect of barriers on health and rehabilitation centers utilization; that is, to quantify to what extent PWD presented to these facilities for medical care. PRs are a suggested measure of association for cross-sectional studies as odds ratios tend to overestimate the results²⁹. Corrected chi-squared tests were used given the type of sampling to estimate associations between variables. Finally, to control for the potential effects of confounding variables, we performed a Poisson log regression analysis with robust variance and presented adjusted PRs for each of the barriers evaluated.

Ethical issues

Data for this study come from an open access, de-identified dataset available in the website of the INEI (<http://iinei.inei.gob.pe/microdatos>). Since data are publicly available and it is not possible to identify the survey participants, approval from an Institutional Review Board was unnecessary.

Results

General characteristics

Among 37,524 participants, 20,663 (18 years of age and older) participants reported or were identified to have a physical disability and were included in the study. The mean participant age was 66.5±16.8 years and 57.5% were female. Table 1 shows the main characteristics of the sample studied according to rural versus urban area of residence. Greatest disparities were seen in education level and socioeconomic status, where lower levels of education and socioeconomic status were seen in rural areas. Conversely, possession of insurance was similar in both rural and urban areas.

Accessibility

Table 2 shows access to health and rehabilitation centers. In rural areas 43.6% of PWD reported the existence of a rehabilitation center in their area compared with people from urban areas where this report was almost 100%. Similar results were found for presence of health centers.

Table 1

Main characteristics of people with disabilities (PWD) by geographical area.

Demographics	Rural n (% *)	Urban n (% *)	Total n (% *)
Age in years [mean (standard deviation) **	64.9 (18.2)	66.9 (16.4)	66.5 (16.8)
Sex **			
Female	2,410 (58.1)	9,248 (55.1)	11,658 (57.5)
Male	2,084 (41.9)	6,921 (44.9)	9,005 (42.5)
Educational level **			
None	1,955 (45.2)	3,231 (16.7)	5,186 (22.4)
Primary	1,968 (43.1)	7,052 (42.5)	9,020 (42.7)
Secondary	456 (9.3)	3,765 (25.8)	4,221 (22.5)
Post-Secondary	110 (2.3)	2,079 (14.9)	2,189 (12.4)
Marital status **			
Single	2,847 (64.0)	10,020 (60.0)	12,867 (60.9)
Married	1,636 (36.0)	6,113 (39.9)	7,749 (39.1)
Socioeconomic status [tertile] **			
Lowest	1,807 (43.3)	5,460 (25.8)	7,267 (29.3)
Middle	1,218 (27.4)	5,262 (32.8)	6,480 (31.7)
Highest	1,469 (29.3)	5,447 (41.4)	6,916 (39.0)
Health insurance?			
No	2,782 (61.9)	10,361 (64.5)	13,143 (63.9)
Yes	1,704 (38.2)	5,701 (35.5)	7,405 (36.1)
Number of disabilities			
1	1,545 (32.7)	4,594 (28.5)	6,139 (29.3)
2	1,271 (26.9)	4,832 (29.1)	6,103 (28.7)
3+	1,678 (40.4)	6,743 (42.4)	8,421 (42.0)

* Weighted percentages;

** Results with $p < 0.05$.

Despite that difference, fewer than 30% of the survey participants reported using rehabilitation centers. Furthermore, PWD in rural areas reported having more troubles accessing health centers and rehabilitation centers than those in urban areas.

Perceived barriers

Small differences between rural and urban areas were observed regarding struggles with public transportation use (Table 2). However, this analysis had many missing data because metro and train transportation options are limited to urban areas. Nonetheless, reports of architectural barriers (i.e. absence of ramps, handrails, elevators, adapted bathrooms or information counters) are significantly more frequent in rural areas.

Barriers affecting medical facility use

Table 3 shows the results obtained from the Poisson regression analyses. PRs show that architectural barriers and struggles using public transportation have no effect on the use of health centers (all PRs close to 1).

However, the probability of rehabilitation center use is lower when PWD report that those centers have no ramps, handrails, adapted bathrooms, elevators, or information counters (all PRs < 1). Probability of rehabilitation center utilization is also lower when people report they struggle using public

Table 2

Accessibility and perceived barriers of medical facilities.

	Rural n (% *)	Urban n (% *)	Total n (%*)
Health centers in the locality	3,955 (88.6)	15,415 (99.9)	19,370 (97.7)
Rehabilitation centers in the locality	1,896 (43.6)	14,401 (96.2)	16,297 (85.6)
Utilization of health centers	2,860 (71.7)	13,181 (87.5)	16,041 (84.6)
Utilization of rehabilitation centers	220 (10.0)	3,220 (27.8)	3,450 (21.2)
Struggle accessing health centers **	1,579 (56.8)	5,989 (38.6)	7,568 (47.2)
Struggle accessing rehabilitation centers **	76 (35.1)	1,021 (26.4)	1,097 (31.8)
Struggle using public transportation ***			
Bus	1,590 (67.8)	9,214 (60.2)	10,804 (61.2)
Metro	20 (21.7)	618 (28.3)	638 (28.3)
Train	27 (45.5)	388 (27.2)	415 (25.9)
Any of mentioned	1,597 (68.0)	9,250 (60.6)	10,847 (61.6)
Absence of: #			
Ramps	1,916 (72.1)	2,879 (17.5)	4,795 (26.3)
Handrails	2,027 (74.3)	4,098 (23.5)	6,125 (31.7)
Elevators	2,550 (93.5)	8,793 (57.4)	11,343 (63.2)
Adapted bathrooms	2,432 (89.4)	7,825 (47.4)	10,257 (54.2)
Information counters	1,511 (58.7)	3,695 (22.2)	5,206 (28.1)
Any of the above	2,636 (96.4)	9,585 (64.5)	12,221 (69.6)

* Weighted percentages. All differences between rural and urban areas were significant ($p < 0.05$);

** Questions asked only to people who reported hospitals or rehabilitation centers in their locality;

*** Some cells have small frequencies because the type of transportation does not exist in the locality;

As reported by the survey participants.

buses ($PR = 0.72$). After controlling for the effect of potential confounders (e.g. area of residence, number of disabilities, and possession of health insurance) in the regression analyses, PRs for utilization of rehabilitation centers do not vary substantially and remain significant.

Discussion

Interpretation of results

Rural residents appear significantly disadvantaged compared to urban residents in terms of availability and accessibility of health and rehabilitation centers. This relative absence of medical facilities in rural Peru is consistent with several other reports analyzing access to health services for people with and without a disability^{30,31,32}. It also corroborates other findings of inequality in healthcare access for PWD in LMICs³³. While rural areas in LMICs are often low-resourced and have more needs beyond healthcare, our results show that possession of health insurance was similar for both rural and urban residents in Peru. This is possibly because the Peruvian government implemented a comprehensive health insurance exclusive for people from under-resourced areas in 2001, and it thus represents an opportunity for government and decision-makers to improve access to healthcare for PWD regardless their area of residence.

At least 25% of PWD in Peru reported an absence of ramps, handrails, and adapted bathrooms at medical facilities, which is consistent with the Siqueira et al. study¹⁷, where hospitals in Brazil were found to lack ramps and handrails; however, while that study proposed that these architectural barriers prevented PWD from using hospitals and receiving treatment, it only included descriptive analysis to support such conclusions. In addition, our study reveals that few medical facilities in Peru

Table 3

Barriers associated with accessibility at medical facilities.

Barriers	Utilization of health centers				Utilization of rehabilitation centers			
	PR	aPR	95%CI	p-value	PR	aPR	95%CI	p-value
Struggle using public transportation								
Public bus	0.97	0.98	0.95-0.99	0.030	0.72	0.75	0.66-0.86	< 0.001
Metro	0.99	0.99	0.95-1.03	0.613	0.94	0.97	0.80-1.16	0.713
Train	1.00	1.00	0.97-1.05	0.707	0.83	0.84	0.69-1.03	0.106
Any of mentioned	0.97	0.98	0.95-0.99	0.027	0.73	0.77	0.67-0.88	< 0.001
Absence of: *								
Ramps	1.00	0.98	0.99-1.02	0.057	0.60	0.71	0.61-0.82	< 0.001
Handrails	1.01	1.00	1.00-1.02	0.012	0.62	0.68	0.60-0.78	< 0.001
Elevators	1.00	1.00	0.99-1.01	0.720	0.64	0.69	0.61-0.78	< 0.001
Adapted bathrooms	1.00	1.00	0.99-1.02	0.158	0.60	0.64	0.57-0.72	< 0.001
Information counters	1.00	1.00	1.00-1.02	0.047	0.79	0.86	0.74-1.00	0.049
Any of the above	1.01	1.01	0.99-1.02	0.062	0.71	0.77	0.70-0.84	< 0.001

95%CI: 95% confidence interval; aPR: adjusted prevalence ratio; PR: prevalence ratio.

Note: Results were adjusted by age, sex, area of residence (rural/urban), possession of health insurance and number of disabilities.

* As reported by the survey participants.

have elevators and information counters, which is also considered a barrier for PWD, according to the CPRD⁸. In Ghana, people with physical disabilities were also more likely to perceive physical barriers such as the absence of ramps and elevators³⁴. The absence of these structures and the high perception of these barriers may indicate that institutions in charge of improving rights of PWD are not fulfilling CRPD accessibility guidelines¹⁰.

Other results highlighted in our study are the barriers to public transportation. Whether PWD live in rural or urban areas, they experience great struggles using public buses or trains (up to 68%), impeding them from moving from their homes to several places, including health and rehabilitation centers. Similar results were found in a Russian report³⁵. Lack of transportation access is extremely detrimental and disability-contributing for people with physical limitations, given that the rehabilitation they require is often long-term and needs regular, frequent visits to healthcare facilities⁷. LMICs seeking to improve health outcomes of PWD and comply with the CRPD must also invest in their transportation infrastructure.

Assessing the effects of architectural and transportation barriers on medical facility use, struggle using public buses and the absence of ramps and adapted bathrooms were possibly the main factors for PWD's not using rehabilitation centers. However, none of the barriers assessed in this study affected health center utilization (all PRs near 1), which possibly reflects PWD's perception that their non-rehabilitation medical issues are more important than rehabilitation. Alternatively, perhaps PWD go to hospitals for serious situations and therefore prefer to use private transportation rather than public transportation and/or consider facility architectural barriers secondary. Future studies should include a physical evaluation of medical facilities in Peru, assessing for compliance with CRPD guidelines to determine whether rehabilitation centers are indeed less accessible than hospitals.

Strengths and limitations

This study has several limitations. Information obtained about medical facilities is self-reported and subject to bias. Several participants were older adults, and aspects like the severity of the disability or the number of concomitant disabilities could have altered PWD's perception of architectural barriers. Nevertheless, we controlled for these possible confounders in our regression analysis. By analyzing data just from people with physical limitations, their reports are more reliable since they are more

dependent on architectural and transportation barriers for their mobility than people with other disabilities and are hence, more likely to perceive these barriers. Another limitation is the presence of some barriers that are more likely to be reported in rural places; for example, absence of elevators or trains may differ between rural and urban areas and thus provide biased estimates. To avoid bias, we adjusted for urban/rural area in the regression analysis and showed the analyses for each barrier separately.

Access to healthcare for PWD is also compromised by many variables which we did not analyze, including health providers themselves. For instance, discrimination in the healthcare setting, lack of training from health professionals to manage disability and lack of trust with the medical personnel have been found to diminish utilization of hospitals and other health centers, among other factors^{23,36,37}. Although in ENEDIS this information was not collected, these biases would less likely be present in rehabilitation centers (given that rehabilitation centers treat mostly PWD), and therefore would probably not affect our results.

Furthermore, physical access to transportation and medical facilities alone are not a guarantee of adequate access to healthcare to people with physical disabilities, as medical equipment for physical examinations and tools like imaging tables must also be accessible. It is also conceivable that medical facility accessibility has changed since these reports were obtained in 2012. However, no local data is available to investigate this possibility.

Nonetheless, by analyzing data from a large survey with a random sample, our study likely has external validity, and our results may be extrapolated to other non-studied regions of Peru and other LMICs with similar infrastructure characteristics to Peru. We also controlled for other variables that may affect use of medical facilities by using robust statistical analyses, providing our results with internal validity.

Relevance of findings

Several authors emphasize the necessity to address physical barriers to improve accessibility and usability of public buildings, including medical facilities^{38,39}. Additionally, the CRPD and public policies in several countries demand that accessibility for PWD should be a priority in order to enable them to fully participate in society⁹. Addressing physical barriers in the environments of PWD is key to improving their health outcomes and quality of life and minimizing disability as physical barriers increase PWD's participation restrictions⁴⁰.

Although many other barriers could prevent PWD from visiting health and rehabilitation centers, examining architectural and transportation barriers provides some perspective on the situation. Determining the extent to which these barriers prevent access to health care for PWD enables the proposition of critical changes to the infrastructure of public buildings and transportation, in line with the CRPD. For public, government-run healthcare facilities, the government can easily enforce and monitor these guidelines by incorporating them into the usual supervision protocols. However, in Peru, many rehabilitation centers are private and work independently of the government. Broader regulatory initiatives are thus necessary to ensure that physical barriers do not prevent PWD from visiting such centers, which is especially critical in areas where private rehabilitation services are the only ones available.

Conclusions

PWD who perceive physical and environmental barriers are less likely to use rehabilitation centers than people who do not perceive these barriers, thereby further contributing to disability as defined by the CRPD. This evidence should prompt governments and healthcare institutions that provide services to PWD to ensure their building and transportation infrastructure allow proper access. Similar barriers may prevent access to healthcare for PWD in other LMICs; therefore, identification of these barriers is a first step in improving health outcomes for PWD and achieving compliance with the CRPD.

Contributors

M. Moscoso-Porras contributed to the conception, data analysis, writing process and final approval of the manuscript. A. K. Fuhs contributed to the conception, elaboration, and final review of the manuscript. A. Carbone contributed to the elaboration and final approval of the manuscript.

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Conflict of interest

The authors declare no conflicts of interest.

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Resumen

Las personas con discapacidades (PWD por sus siglas en inglés) se enfrentan a diversos desafíos, en lo que se refiere a servicios de salud. Pese a ello, se desconoce hasta qué punto se extienden las barreras arquitectónicas y de transporte que impiden el acceso al sistema de salud. En Perú, a pesar de que las leyes requieren que los edificios sean accesibles para PWD, no existe ningún informe que muestre que los establecimientos médicos cumplan con esta normativa. Por lo tanto, nos proponemos determinar la asociación entre tales barreras y el acceso a centros médicos. Se analizaron datos procedentes de una encuesta nacional sobre discapacidad. Los participantes eran personas de 18 años y más que informaron de una discapacidad física. La accesibilidad se definió mediante las dificultades de acceder a centros de salud (centros de salud o rehabilitación). Las barreras arquitectónicas consideradas, y que fueron informadas, son: ausencia de rampas, barandillas, ascensores, baños adaptados para discapacitados, así como mostradores de información en centros médicos. Las barreras de transporte examinadas incluyeron las dificultades usando autobuses o trenes. Los modelos de regresión Poisson con variancia robusta se usaron para estimar la ratio de prevalencia (PR) y para controlar las variables de confusión. Se incluyeron a 20.663 participantes. La edad media fue 66,5 años y un 57,5% eran mujeres. Las barreras arquitectónicas de las que se informó representaron un 40% y las de transporte un 61%. Los informes de todas las barreras fueron mayores en áreas rurales, en comparación con las áreas urbanas ($p < 0,001$). Las deficiencias en rampas, barandillas, ascensores y baños adaptados estuvieron asociadas con una baja utilización de los centros de rehabilitación ($p < 0,001$), pero no en el caso de los centros de salud ($p > 0,05$). Las barreras arquitectónicas y de transporte representan un impedimento para la búsqueda de centros de salud y rehabilitación. Se necesitan más iniciativas para mejorar esta situación.

Accesibilidad Arquitectónica; Accesibilidad a los Servicios de Salud; Transportes; Evaluación de la Discapacidad

Resumo

As pessoas portadoras de deficiência (PPD) enfrentam diversos desafios no acesso aos serviços de saúde. Entretanto, não se sabe até que ponto as barreiras arquitetônicas e de transporte impedem o acesso à assistência. No Peru, apesar de leis que exigem a acessibilidade dos prédios para PPD, não há relato de que os serviços de saúde cumpram com tais regras. O estudo teve como objetivo determinar a associação entre esse tipo de barreira e o acesso aos serviços de saúde. Foram analisados os dados de um inquérito nacional sobre deficiência. Os participantes eram pessoas com 18 anos ou mais que relatavam ser portadoras de deficiência física. A acessibilidade era definida pelo relato de dificuldades em acesso aos serviços de saúde (centros de saúde ou de reabilitação). As barreiras arquitetônicas consistiam na ausência de rampas, corrimões, elevadores e banheiros adaptados e balcões de informação nos serviços de saúde. As barreiras de transporte incluíam dificuldades no uso de ônibus ou trens. Foram utilizados modelos de regressão Poisson com variância robusta para estimar razões de prevalência (RP) e controlar por fatores de confusão. Foram incluídos 20.663 participantes, com média de idade de 66,5 anos, sendo 57,5% do sexo feminino. Houve relato de barreiras arquitetônicas e de transporte por 40% e 61% dos participantes, respectivamente. O relato de barreiras era mais frequente em áreas rurais comparado com áreas urbanas ($p < 0,001$). A ausência de rampas, corrimões e elevadores e banheiros adaptados estava associada com menor utilização de centros de reabilitação ($p < 0,001$), mas não de centros de saúde ($p > 0,05$). As barreiras arquitetônicas e de transporte representam um impedimento à busca de assistência em centros de reabilitação. São necessárias medidas para melhorar essa situação.

Acessibilidade Arquitetônica; Acesso aos Serviços de Saúde; Transportes; Avaliação da Deficiência

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