

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Prevalence of Disability in Iran.

Hamid Salehiniya^{1, 2}, Behzad Karami Matin³, Hamid Hasanpour⁴, Bahman Khosravi⁵,
Fardin Moradi⁵, Fatemeh Darabi⁶, Parvin Radfar⁷, and Shahin Soltani^{5*}.

¹Zabol university of Medical Sciences, Zabol, Iran.

²Iran University of medical sciences, Tehran, Iran.

³Research Center for Environmental Determinants of Health (RCEDH), Kermanshah University of Medical Sciences, Kermanshah, Iran.

⁴Dept. of Medical Parasitology and Mycology, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.

⁵Department of Health Management and Economics, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.

⁶Department of Health Education, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.

⁷Payame Noor University

ABSTRACT

Understanding of prevalence of disability in Iran can provide valuable information for researchers and policy makers. Aim of the study was to describe prevalence and distribution of disabilities in Iran. Data was extracted from nationally census conducted in Iran in 2011. In the census, disability was measured according to body impairment. Data obtained from through a door to door household census. Prevalence of disability in Iran was around 1.3 per 1000 general population. Physical disability had the highest prevalence among other types of disability (8 per 1000 general population). Overall, Tehran province has the highest prevalence of disability in Iran. Collecting data on disability through national survey studies is essential in Iran. These studies can show deeper and wider picture from kinds of disabilities and their effects.

Keywords: Disability, Prevalence, Distribution, Census.

**Corresponding author*

INTRODUCTION

Disability is the term that covers impairments, activity limitations and participation restrictions. Disability presents the negative aspects of the interaction between an individual and that individual's contextual factors[1]. Understanding prevalence of disability is very important for health policy makers to be able to allocate and distribute health resources correctly. Disability related cost for medical care is increasing for many countries. Surveillance of disability prevalence can be useful in setting policies, anticipating the services, developing health promotion programs and monitoring national health objectives[2].

The first national census in Iran was done by Statistical Center of Iran in 1956[3]. In general, 7 national censuses have been done in Iran since 1956 but Data on disability have collected from 1976 to 2011. In 1976, 1986, 1996, 2006, prevalence of disability was 4.09 %, 4.03 %, 4.29 %, and 1.8 % respectively[4]. Prevalence of disability has high fluctuation during these years so that Prevalence of disability has been decreased from 4.09 % to 1.8%. Unfortunately, disability definition is based on impairment in the censuses and we need to revise them according to International classification of functioning, disability and health (ICF). Current method for data collection do not give us a correct picture from disability in Iran.

Aim of this study was to describe prevalence and distribution of disabilities in Iran.

METHOD

Data was extracted from nationally census conducted in Iran in 2011. The census was done at 31 provinces, 1139 city and 96549 villages in Iran. In the census, the type of disabilities were categorized according to body impairment (physical, intellectual, hearing and vision). Data obtained from through a door to door household census. Questionnaires were completed according to population self- reports.

RESULTS

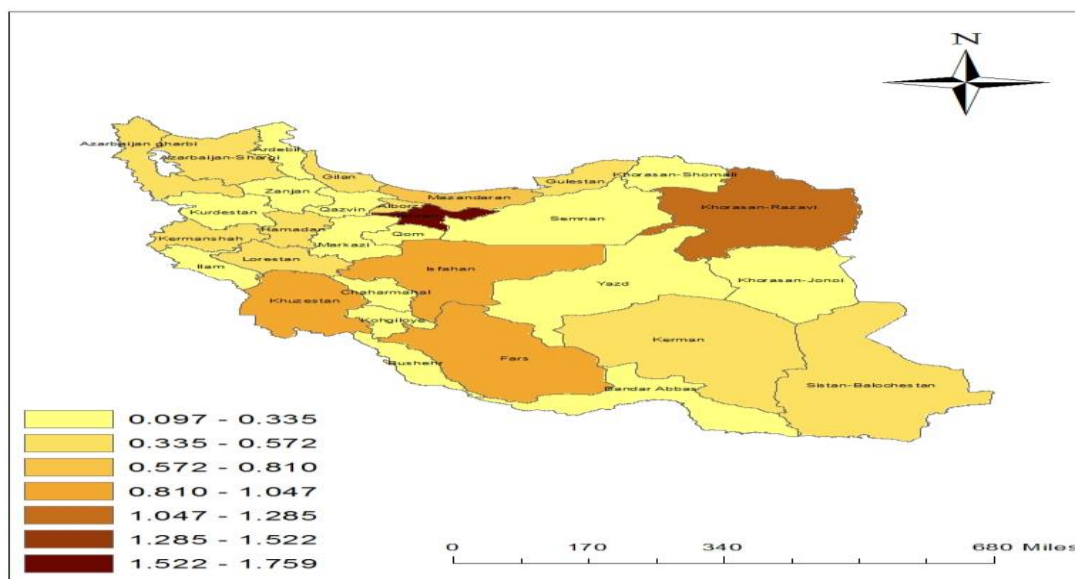


Figure1: Disability distribution in Iran provinces in 2011

In the census a total of 1017659 persons with disability included. 637357 men and 380302 women with disability identified in the census. 4.69% Iranian households had a person with disability. In these, 81.4%, 14.6% and 3.9% of households with people with disability had one, two and three persons with disability. Prevalence of disability in Iran was around 1.3 per 1000 general population. In table 1, Disability Prevalence has been showed

according to type of disability. Physical disability had the highest prevalence among other types of disability (8 per 1000 general population). Prevalence of vision, hearing and physical disability was highest in the older age group (60<) whereas prevalence of intellectual disability is highest for young people (5.6 per 1000 general population). Also, 4.5 % of over 70 years have type of disability in Iran.in these, prevalence of disability for men and women was 52.5 and 47.5 % respectively.

Figure1 is a descriptive map of prevalence of disability in Iran provinces in 2011. The figure present that the highest prevalence of disability is in Tehran.

Prevalence of type of disabilities has been shown in figure 2 and physical disability has the highest prevalence in older adults.

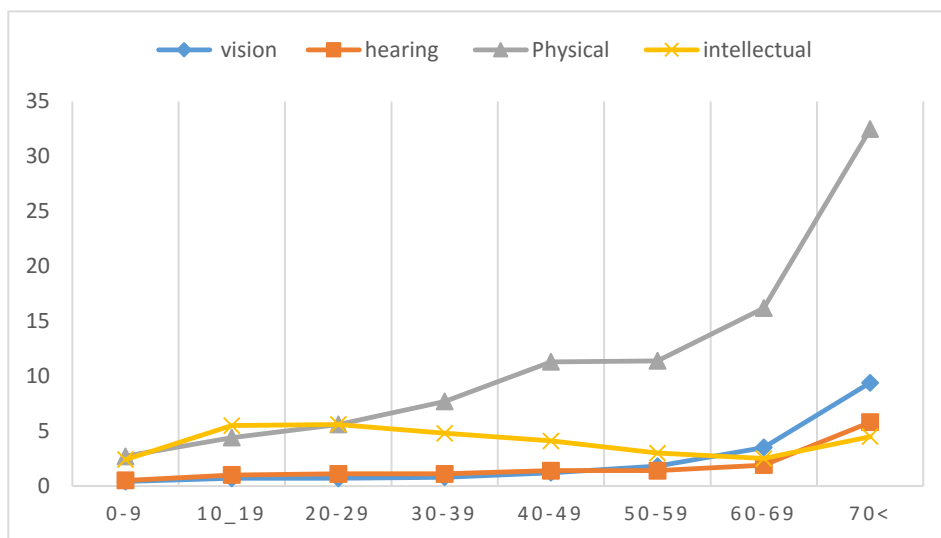


Figure2: prevalence of disabilities according to age groups

Education status for people with disability has been showed in figure 3. People with physical disability has the highest and people with intellectual disability has the lowest rate of literacy among people with disability in Iran.

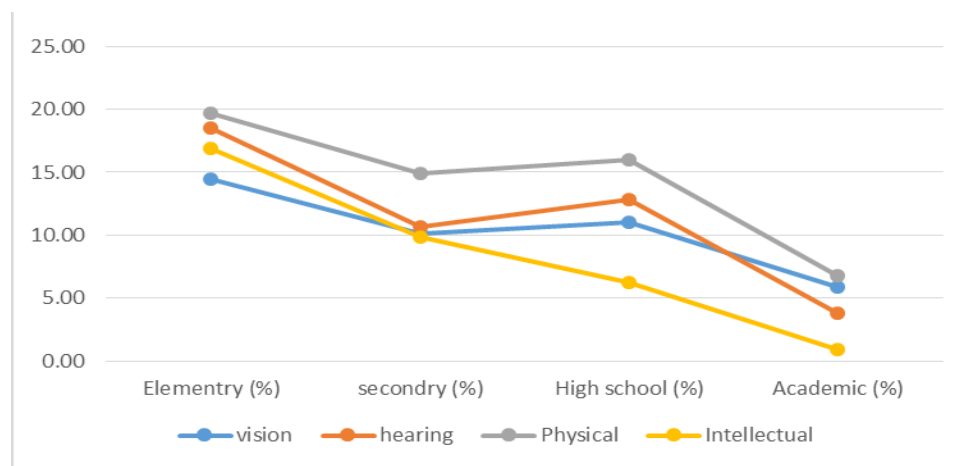


Figure 3: Education status among people with disability

Occupational status for people with disability has been showed in figure 2.

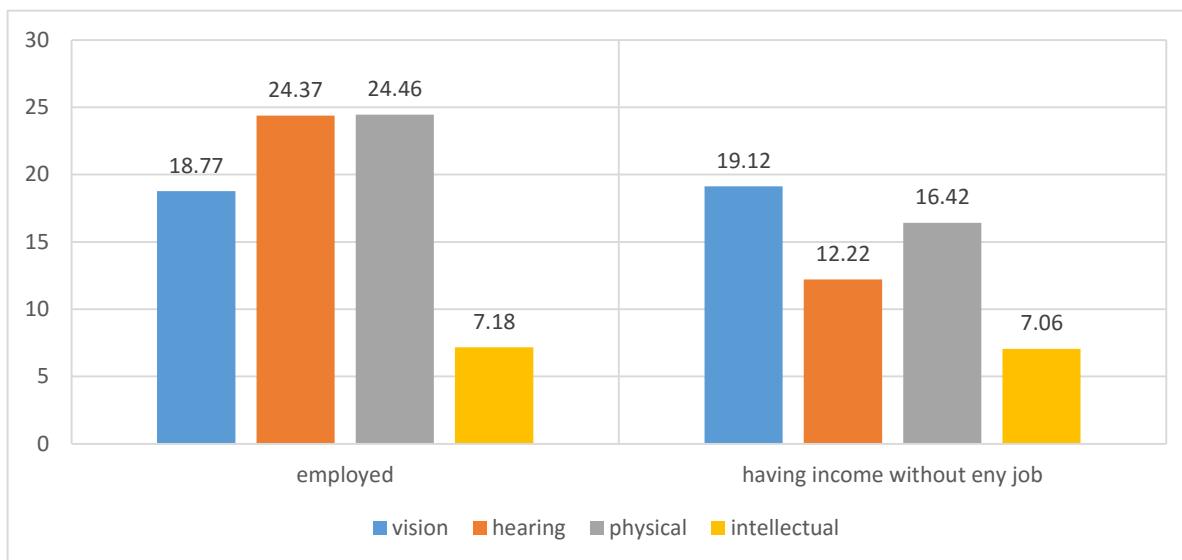


Figure 4: Occupational status for people with disability

According to figure 2, rate of employment for people with physical and hearing disability is more than other disabilities and nearly 82% of people with ID were not able to work. 54.82 % of people with disability were earning income whereas they had no job.

As shown in table 2, people with ID have the lowest rate of marriage, people with people with PD have the highest rate of marriage and people with DI have the highest rate of divorce.

Table 1: Martial status among people with disability

Marital status	Vision (%)	Hearing (%)	Physical (%)	Intellectual (%)
Married	52.24	45.17	54.58	15.9
Divorced	16.34	15.4	2.07	2.2
Never married	28.8	41.6	32.39	78.4

DISCUSSION

According to census results, prevalence of disability was 1.3 per 1000 general population. Tehran has the highest prevalence of disabilities in Iran. Migration of families of children with disabilities to Tehran to find jobs and receive more health services may be one of the effective factors [5-7]. Qualitative and quantitative distribution of rehabilitation and healthcare services in the country is not fair because many health services have been accumulated in big cities like Tehran[8].

According to world report on disability, Prevalence of disability in Iran in comparison to many developed and developing countries is lower[9]. Different factors can influence the results. First, wrong understanding of disability conception by statistical center of Iran. They have used measures that focused impairments whereas international approaches consider activity limitation and participation restriction in addition to impairment[9].

Second, the data collection method is an important factor that can influence results[10]. National census of Iran occurs at 5 years interval and only few disability questions incorporate and thus it cannot provide richer

information about people with disability and their health status while survey studies have more comprehensive questions.

Third, variables such as age, education level, life location, health status, stigma attached to impairment and training to complete questionnaires are effective at census results. For example people with low literacy level have not sufficient knowledge about disability or they do not know how to report their health and disability status.

As shown in figure 1, physical disability has the highest prevalence among other types of disabilities. Prevalence of physical disability is high in older Iranians. Iranian's population is aging. The proportion of older Iranians (age 60 years and above) has been grown from 6.2 % (1173679) in 1956 to 8.2 (6159676) in 2011[11]. Furthermore, increases in road accident is one of the important causes of high prevalence of physical disability in Iran so that in the past 8 years, 2571364 persons have been injured in road accidents. In other hand, about 300000 people injury each year as a result of road traffic accidents[12, 13].

Prevalence of vision, hearing and physical disabilities increases in older age groups (60<) but prevalence of intellectual disability is higher at younger ages (20-29 years old). The result is consistent with other studies so that trend of Physical disability is increasing whereas prevalence of intellectual disability is higher in adolescent and young population. Studies show that Mortality rate for people with intellectual disability increases in older adults [14-18].

Figure 3 presents a decreasing trend in educational status. Many persons with disability have failed to complete high school and university. Government should provide more opportunities for them to attend higher degrees. Studies show that a great disparity exists in Education between people with disability and without with disability [19-21]. According to World Declaration on Education for All, we need to ensure that the learning needs of young and adult people be met and achieved a 50% improvement in levels of adult literacy[22]. We should not forget that people with disability are part of this group.

Collecting data on disability through national survey studies is essential in Iran. These studies can show deeper and wider picture from kinds of disabilities and their severity. There is not Prevalence data on disability

CONCLUSION

It is important to note that Policy formulation for health promotion needs a valid and reliable data. Utilization of international common framework not only can provide good information for Iran but can provide valuable data sources for international research and planning. Thus, we need a standard and comparable framework to measuring disability in Iran. The framework should be extracted from ICF. ICF is a common language for description, measurement and classification of health and disability related states. Recently, WHO has developed a tool to measuring disability titled WHODAS 2.0. The tool is an instrument that has been developed based on concepts of ICF. WHODAS2.0. has two 12-Item and 36-item versions. The 12-item version can be useful for population based studies such as national censuses and surveys. We need to determine psychometric properties of WHODAS2.0 in Iran quickly because the tool can give us valid data about type and severity disability in Iran.

REFERENCES

1. Leonardi, M., et al., The definition of disability: what is in a name?, *Lancet* 2006; 9543: 1219-21.
2. Prevalence of disabilities and associated health conditions among adults--United States, 1999. *MMWR Morb Mortal Wkly Rep* 2001; 7: 120-5.
3. Iran, S.C.o., *Iran Statistical Yearbook*. 2012, Statistical Centre of Iran Tehran, Iran.
4. Shahin, S., K. Bahman, and S. Hamid, Prevalence of disability in Iran, *Iranian Journal of Public Health* 2015; 10: 1436-1437.
5. Hatami, M., A.H. Abu Bakar, and N. Badarulzaman, Impact of Migration on Housing Prices: A Case of Low-Income Households in Iran. *Acta Universitatis Danubius, Œconomica* 2012; 1.
6. Hmadi, K. and S. Fathi, Factors Affecting the Growth of Migration to Tehran Metropolis, *Urban Management Studies* 2009; 3: 27-44.

7. Sintusingha, S. and M. Mirgholami, Parallel modernization and self-colonization: Urban evolution and practices in Bangkok and Tehran, *Cities* 2013; 30: 122-132.
8. Kiadaliri, A.A., B. Najafi, and H. Haghparast-Bidgoli, Geographic distribution of need and access to health care in rural population: an ecological study in Iran, *Int J Equity Health* 2011; 1: 39-39.
9. WHO, World report on disability. 2011.
10. Sapsford, R. and V. Jupp, *Data collection and analysis*, Sage 2006.
11. Yearbook, I.S., Statistical Center of Iran. Tehran, Iran, 2013.
12. Entezami, N., et al., Epidemiology of fatal road traffic accidents in Northern provinces of Iran during 2009 to 2010, *Safety Promotion and Injury Prevention* 2015; 1: 1-8.
13. Khorshidi, A., et al., Iranian road traffic injury project: assessment of road traffic injuries in Iran in 2011-2012, *International Journal of Epidemiologic Research* 2015.
14. Heslop, P., E. Lauer, and M. Hoghton, Mortality in People with Intellectual Disabilities, *Journal of Applied Research in Intellectual Disabilities* 2015.
15. Robertson, J., et al., Mortality in people with intellectual disabilities and epilepsy: A systematic review, *Seizure* 2015; 29: 123-133.
16. Waidmann, T.A. and K. Liu, Disability trends among elderly persons and implications for the future, *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 2000; 5: S298-S307.
17. Picavet, H. and N. Hoeymans, Physical disability in The Netherlands: prevalence, risk groups and time trends, *Public health* 2002; 4: 231-237.
18. Freedman, V.A., L.G. Martin, and R.F. Schoeni, Recent trends in disability and functioning among older adults in the United States: a systematic review, *Jama* 2002; 24: 3137-3146.
19. Kc, S. and H. Lentzner, The effect of education on adult mortality and disability: A global perspective. *Vienna Yearbook of Population Research* 2010: pp. 201-235.
20. Lee, M.-A., Disparity in disability between native-born non-Hispanic white and foreign-born Asian older adults in the United States: Effects of educational attainment and age at immigration, *Social Science & Medicine* 2011; 8: 1249-1257.
21. Barton, L. and F. Armstrong, *Policy, experience and change: cross-cultural reflections on inclusive education*, Springer 2007; 4.
22. Gabel, S.L. and S. Danforth, *Disability & the politics of education: an international reader*, Peter Lang 2008.