

The prevalence and characteristics of disability in Eastern Nepal

Karkee R¹, Yadav BK², Chakravartty A³, Shrestha DB⁴

¹Senior Instructor, ²Assistant professor, ³Instructor, ⁴Professor, School of Public Health, BP Koirala Institute of Health Sciences, Dharan

Abstract

Background: Disability is related to poverty and development. Enough information and documentation is not available for developing countries like Nepal.

Aims and Objectives: To assess the self-reported prevalence of disability in terms of age, sex, types, cause and age of onset.

Methodology: A cross-sectional house to house census was carried out by means of structured questionnaires.

Results: A total of 31160 individuals (4.87%) were found disabled out of a total of 640259 individuals. The three most common types of disability are physical affecting limbs, hearing and vision. The most common perceived cause of disability is inborn syndrome followed by injury/accidents.

Discussion: Various publications for the prevalence of reported disability show a figure between three and ten percent, with physical disability affecting locomotion and manipulation as the leading type of disability. The prevalence rate can vary depending upon the disability indicators, methods and population surveyed and perceptions of the people.

Conclusion: The self-reported prevalence of disability in Sunsari District is 4.87%, with inborn-syndrome as the leading perceived cause.

Key words: Disability, types, cause, Nepal

Disability is associated with impairment, handicap, and well-being of a person. The WHO 2002 classification updates the 1980s framework of impairment, disability, and handicap to a functional classification of medical condition, function, and participation, known as the ICF (International Classification of Functioning, Disability and Health)¹. Accordingly, the term disability incorporates a wide-ranging concept and an estimate of disability prevalence is difficult to measure. The information of disability prevalence is essential for preventive and rehabilitative policies for a quality of life in human population.

The number of people with disabilities has been increasing because of war injuries, infectious diseases, malnutrition, chronic diseases, substance abuse, accidents, population growth and medical advances². Disability is related to poverty and development³. Enough information and documentation is not available for developing countries like Nepal. A house to house census in Sunsari district of Nepal was conducted with the support of World Vision International-Nepal, Sunaulo Bihani Area Development Program, Sunsari District to find out status of disability in terms of age, sex, types, cause, and age of onset.

Materials and methods

Sunsari district, with 1257 square kilometre area, is an eastern *terai* district. The district has a total of 640259 population distributed over 49 Village

Development Committees (VDCs) and 3 municipalities (Dharan, Inaruwa, Itahari) and over 128155 households. The district is one of the highly populated and developed districts in Nepal.

Before the survey, an advisory committee was formed with representatives from District Government Organisations (GOs) and Non-Government Organisations (NGOs). A house to house cross sectional census covering all the households of all the VDCs of Sunsari district was carried out from January 25, 05 to June 15, 05 with the help of 7 field supervisors, 63 enumerators, one technical consultant, one field coordinator, and one office assistant. Training and field test is essential part of the survey. Seven days orientation training to survey supervisors and enumerators was given and pre-test of the questionnaire was conducted.

Correspondence

Mr. Rajendra Karkee
School of Public Health
BP Koirala Institute of Health Sciences, Dharan, Nepal
E-mail: rkarkee@yahoo.com

Disability prevalence indicator may be based on either specific impairments or functional limitations and can cover a variety of conditions. Here, we identify the disability categories into five namely physical, visual, intellectual, hearing and mental, which has been adopted by the protection and Welfare of Disabled Persons Act, 2039 B.S. of the Government of Nepal. Each head of household (or next most senior if not present) was asked, “Is there any disabled members (specifying the five categories) in your household?”

If yes, a set of structured questionnaire was asked to either disabled person (or to the next most senior if the disabled person is unable to respond) to find the information regarding age, sex, types, causes, age of onset of disability of the disabled person. These variables were coded and analysed by SPSS.

Results

The census interviewed representative from 128155 households with 640259 residents, 321962(50.28%) residents were male and 318297 (49.71%) were female.

A total of 31160 people [a prevalence of 4.87 %; 16117 (51.72%) male and 15043 (48.27%) female] were found disabled living in 8837 households

(with household prevalence of 6.89%). The reported prevalence of disability varied across the various VDCs from 2.99% to 8.74%. The highest prevalence was in Bokhara, a rural VDC, which has 1559 disabled people out of 17837 total populations. The greatest numbers of disable people are living in Ithari municipality (2573 disabled people out of 31160 i.e. 8.25%).

The prevalence of disability in different age-group was shown in Table 1. Age-wise group has been divided into five categories and the 15-49 age groups have the highest number of disabled people though the prevalence is highest in older age i.e. 50 and above group.

Types of disability, age of onset of disability and causes of disability among the total disabled cases in Sunsari district were shown in Diagram 1, 2 and 3 respectively. Half the types of disability are of physical origin. The most common cause of disability is inborn syndrome (17.19%) followed by injury/accident (11.45%). The onset of disability commonly started either at five years and below or it occurred in between 19 and 60 years.

Table 1: Age-specific disability in Sunsari District

Age groups	Total population			Total Disabled Population			
	Male	Female	Total (%)	Male	Female	Total (%)	Prevalence (%)
Less than 1 year	6283	5946	12229 (1.91)	50	38	88(0.28)	0.71
1-4 years	29263	27917	57180 (8.93)	566	363	929(2.98)	1.62
5-14 years	86451	81653	168104 (26.25)	2607	1999	4606(14.78)	1.189
15-49 years	161004	167447	328451 (51.29)	7225	7149	14374(46.12)	4.37
50 and above	38961	35334	74295 (11.6)	5669	5494	11163(35.82)	15
Total	321962 (50.28)	318297 (49.71)	640259(100)	16117 (51.7)	15043 (48.2)	31160(100)	4.87

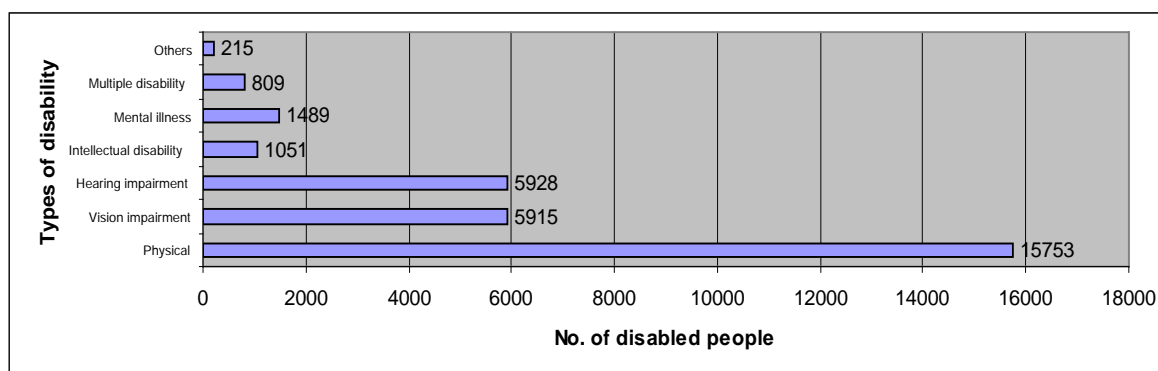


Fig 1: Type-specific disability in Sunsari District

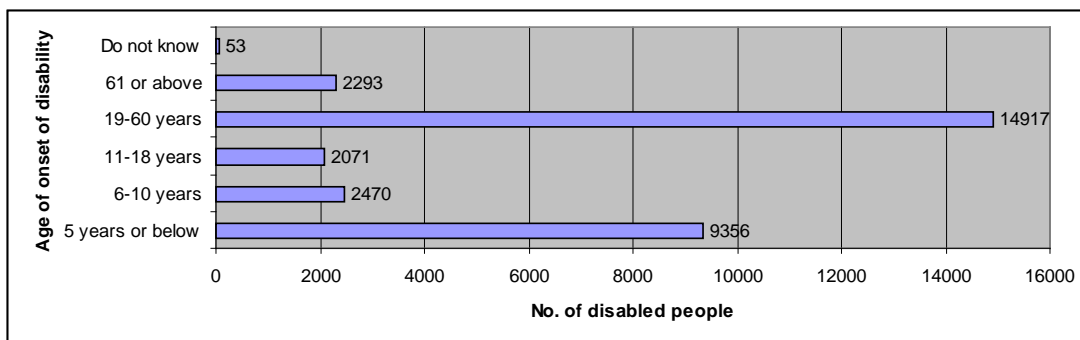


Fig 2: Age of onset of disability among disabled people of Sunsari District

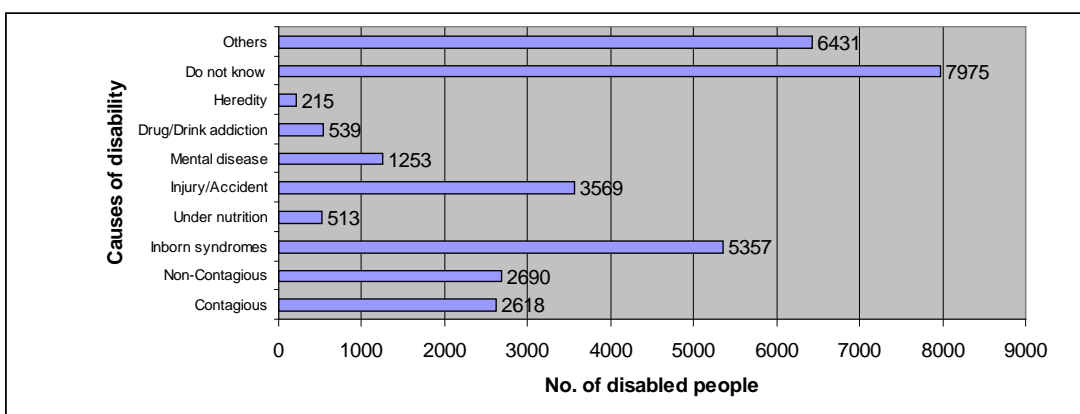


Fig 3: Causes of disability among disabled people of Sunsari District

Discussion

According to the World Health Organization 10% of the people in any community have disabilities⁴. Publications for the prevalence of reported disability suggest a figure between three and ten percent^{5, 6,7,8,9}. Our finding of disability prevalence of 4.87% in Sunsari district lies within this range. This prevalence rate in Sunsari district is more than the National prevalence rate of 1.63% as estimated by National Planning Commission and UNICEF in 2001¹⁰ but agrees with other pocket studies carried out in different districts of Nepal. For example, Danish International Development Agency (DANIDA) funded two studies estimated the prevalence rate as 5.04%¹¹ and 4.55%¹². However, due to the heterogeneity of the concepts and indicators of disability, the prevalence rate can vary depending upon the indicators, methods and population surveyed and perceptions of the people^{13,14,15}. Literature shows that prevalence rose as indicators become more general and generic¹³.

As in our study, physical disability affecting locomotion and manipulation is the leading type of disability in various prevalence studies, usually followed by blindness and deafness^{6,7,8,9}.

The perceived causes of this study are inborn syndrome either related to hereditary or poor maternal condition and care during pregnancy; injury/accidents related to occupational hazards; and contagious related to infectious diseases. The Health statistics of Nepal also show the high Maternal and infant mortality, poor child nutrition, high road traffic and agricultural related accidents and infectious diseases such as leprosy and TB.

Conclusion

The self-reported prevalence of disability in Sunsari district is 4.87% with inborn-syndrome as the leading perceived cause. Locomotory, vision, and hearing disabilities are the most common types of disabilities in the community and rehabilitative and preventive measures should be targeted towards them.

Acknowledgements

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