

**“MAGNITUDE OF DISABILITIES IN A RURAL AREA OF VARANASI”.****<sup>1</sup>Dr. Priyanka Kesarwani and <sup>2</sup>Dr. C. P. Mishra**<sup>1</sup>Associate Professor, Department of Community Medicine, T.S. Misra Medical College and Hospital, Lucknow, U.P. India.<sup>2</sup>Professor, Department of Community Medicine, Institute of Medical Sciences, BHU, Varanasi, U.P., India.**\*Corresponding Author: Dr. Priyanka Kesarwani**

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**ABSTRACT**

**Introduction:** Avoidable disability is a major socio-economic and public health problem and measurement of disability is influenced by several factors. It will be worthwhile to study the magnitude and spectrum of disability in general and to pin-point areas requiring focussed attention and personalised care to optimise interventions at various levels. **Material and Methods:** Information pertaining to disability status of 3600 subjects was obtained by interviewing the head of the family or any responsible member with the help of predesigned and pretested interview schedule based on WHO classification for disabilities and modified on the basis of pretesting. **Results:** Overall prevalence of disability was 14.03%. This was least (1.9%) in 0-4-year age group. Education, occupation and family size were significantly ( $p < 0.01$ ) associated with disability status. **Conclusion:** More attention should be required for geriatric age group, illiterates and for unemployed subjects.

**KEYWORDS:** Disability, Rural area, Disabled person, WHO.**INTRODUCTION**

Avoidable disability has been a major socioeconomic and public health problem in the developing country.<sup>[1]</sup> Disability is considered as existing difficulty in performing one or more activities in accordance with subject's age, sex and normative social role.<sup>[2]</sup> Every society has a section of people who suffer from some kind of physical or mental disabilities, which may be congenital, acquired or result from the process of ageing. Despite their plight, the efforts made by the government and non-governmental agencies to ameliorate their conditions continue to be dismal and much requires to be done. In India this segment of the country's population needs a specific endeavour not only for the identification of people with disability but also requires special attention for creating conditions allowing people with disabilities to live life in a dignified manner and with a sense of fulfillment.<sup>[3]</sup> Perusal of available data through Census, NSSO and WHO estimates clearly reflects that prevalence of disability is strongly influenced by conditions included in the disability list.<sup>[2-5]</sup> Conditions listed in Census 2001 were visual, hearing, speech, locomotor and mental disabilities. Conditions considered in NSSO estimates were locomotor, hearing, blind, speech, mental illness, mental retardation, low vision and multiple disabilities. However, WHO provided a comprehensive coverage of disabilities viz. behaviour, communication, personal care, locomotor, body disposition, dexterity, situational, particular skill disabilities and other activity restrictions. Several other

factors such as availability of diagnostic facilities, abilities of personnel to identify disabilities, diagnostic criteria, estimation procedure, validity of the diagnostic tools and sample size considered for disability measurements do affect disability estimates.

Estimating reasonably accurately the disability-inflicted population is an extremely difficult task. It needs administrative statistics to be perfect and data sources are to be complete. Routine large surveys such as census normally have the capacity of making available data of rare population characteristics at district level which is an important input for decentralized planning. However, this is not valid for estimates of disability. Customarily parents and individuals have a tendency to conceal the physical disabilities from others, particularly in the neighbourhood, as these attributes have the potential to become an open secret and attach a lifelong stigma preventing them to lead and enjoy a normal life. The impaired individual typically invokes sympathy not with a view to facilitate him to lead a normal life on his own but more often becomes an object of pity.<sup>3</sup> Keeping this in mind focused community based study to know the magnitude and spectrum of disabilities should be of primary concern. Measurement of disabilities serves as baseline data to measure impact of ongoing programmes.

**MATERIAL AND METHODS**

This study was undertaken in Chiraiyaon Community Development Block of Varanasi District. This study was

duly approved by the Ethical Committee of Banaras Hindu University constituted for this purpose. A community based cross sectional approach was adopted for the study. A verbal consent was taken from participants before conducting the study. Data was collected by using a predesigned and pretested questionnaire. Sample size for estimating magnitude of disability had been fixed by taking a prevalence of disability at 10% and permissible level of error to 10%. The sample size worked out to be 3600 as given below:

$$\text{Sample Size} = 4pq/l^2$$

$$\text{Where, } p = \text{prevalence of disability} \\ = 4 \times 10 \times (100-10) / 1 \times 1$$

$$l = \text{permissible error}$$

$$= 4 \times 10 \times 90$$

$$q = 100 - p$$

$$= 3600$$

Two villages were identified by stratified random sampling method; stratification was done on the basis of the distance from the block headquarter, Chiraigaon. One village was within  $\leq 5$  kms and another beyond 5 kms. Total population and the number of families in these two villages were 7741 and 1207, respectively. Considering average family size of these two villages as six, 603 families were selected by systematic random sampling. Three families did not cooperate thus excluded from the study. In case of non-availability on two visits and non-cooperation by the family, the next family was considered for the study.

#### Tools and Techniques of study

The primary tool was a predesigned and pretested interview schedule based on WHO classification for disabilities and modified on the basis of pretesting.

#### Analysis of data

Data thus generated were analysed with the help of PC using SPSS version 16. Appropriate tables were

generated. Chi-square and confidence-intervals (CI) were computed for statistical inference.

#### RESULTS

Out of 3600 subjects 41.2% belonged to 0-14 years and 9.1% were  $\geq 60$  years. The sex ratio was 963 females /1000 males and 31.9% subjects were engaged in productive work. Overall prevalence of disability was 14.03% (CI12.90-15.16). Out of 3600 examined subjects; 7.1% subjects were of only one type of disability while 3.5% had more than 3 types of disabilities (Table-1). Prevalence of disability in age groups 0-4 years, 5-24 years and  $\geq 60$  years was 1.9%, 10.3% and 38.5% respectively (Table-2). There existed significant difference in the age- wise disability status ( $p < 0.01$ ). The association between education and disability status was statistically significant ( $p < 0.001$ ). Persons with disability were maximum (38.5%) in the illiterate age group; corresponding value in subjects with education status pre-school + primary and high school and above were 9.4% and 8.4%, respectively. (Table-3). Occupation of the study subjects was significantly associated with their disability status ( $p < 0.01$ ). As much as 30.2% subjects engaged in labour were disabled; corresponding value for farmer and service categories were 10.0% and 4.8%, respectively. (Table- 4). This was maximum in unemployed group (80.4%).

**Table 1: Disability Status of Study Subjects**

Disability Status	Number (N=3600)	Percentage (%)
0	3095	86.0
1	254	7.1
2	65	1.8
3	60	1.7
4	51	1.4
5	31	0.9
6	34	0.9
All types of disability	10	0.3
Total	3600	100.0

**Table 2: Age-wise disability status**

Age group (Years)	Number of Person Examined (N=3600)	Persons with Disability		Test of significance
		No.	%	
0-4	579	11	1.9	X <sup>2</sup> =272.9 df=6 p=0.000
5-14	906	98	10.8	
15-24	515	49	9.5	
25-34	508	88	17.3	
35-44	392	52	13.3	
45-59	373	81	21.7	
60 & above	327	126	38.5	
Total	3600	505	14.03	

**Table 3: Education-wise Disability Status**

Literacy Status	Number of Person Examined	Persons with Disability		Test of significance
		No.	%	
Illiterate	491	189	38.5	X <sup>2</sup> =293.9 df=4 p=0.000
Pre-school+ Primary	1845	174	9.4	
Middle school	577	84	14.6	
High school	364	31	8.5	
Intermediate and Above	323	27	8.4	
Total	3600	505	14.03	

**Table 4: Occupation-wise disability status**

Occupation	Number of Persons Examined	Persons with Disability		Test of significance
		No.	%	
Farmer	209	21	10.0	X <sup>2</sup> =562.0 df=6 p=0.000
Labour	417	126	30.2	
Business	375	45	12.0	
Service	147	7	4.8	
Housewives	656	99	15.1	
Unemployed/Non-earning	107	86	80.4	
Others	1689	121	7.2	
Total	3600	505	14.03	

## DISCUSSION

There are hundreds of disabilities and there are several causes for these disabilities. Some people are born with disability and other becomes disabled in later part of life.<sup>[6]</sup> In present study we observed that there was higher prevalence of disability in study area than the figures reported by several other studies.<sup>[2-5,7-10]</sup> There is prediction that 5.85% of the population will be having severe and moderate disability in India by 2020. A study conducted nearly four decades ago reported a figure of disability to the extent of 10.01%.<sup>[8]</sup> Contrary to this, a study conducted in rural Karnataka<sup>[10]</sup> and in rural Lucknow<sup>[11]</sup> revealed that disability was 1.48% and 2.02%, respectively. Such a wide variation is due to variations in the conditions included in the disability list as well as a study conducted over a span of time. The present study is based on a very comprehensive list of conditions of disability.<sup>[2]</sup> Besides high magnitude of disability in the study area, there has been another disturbing trend of presence of multiple disabilities. In consonance with the findings of the several studies<sup>[4-5,10-12]</sup> prevalence of disability was high in age group of 5-24 year. Several previous studies<sup>[3-5,12]</sup> has identified linkages between educational and disability status. In present study we observed that illiterates were in a

disadvantaged position. It is difficult to pin-point whether illiteracy has been a pre-disposing factor for disability or a consequence of it. This requires a further more prospective study. If disability starts earlier in life this may hamper formal education. Illiterates may not avail preventive and promotive services and thus remain exposed to the risk of disability. They may also be engaged in hazardous occupations and adverse environmental conditions and thus have more likelihood of disabilities. In present stud we observed that maximum disability was in geriatric age group. Most of geriatric age group disabled require long term care and support due to their limited mobility and physical and mental health problems.<sup>[13-14]</sup>

## CONCLUSION

Over all, the problem of disability was high and half of the subjects had multiple disabilities. Focussed attention is desired for the geriatric age group, illiterates and for unemployed subjects.

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