



Demography India
 A Journal of Indian Association of Study of Population
 Journal Homepage: <https://demographyindia.iasp.ac.in/>



Correlates of Disability in India: Evidence from National Family Health Survey of India (NFHS-5), 2019-21

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Abstract

The disabled population in India faces numerous challenges, including limited access to infrastructure, employment, and quality education. Persons with disabilities always need special care and attention to lead a normal life or to realize their full potential. In the absence of Census in 2021, information on prevalence of disability is unknown even to the policy makers. With this backdrop, this study intended to assess the prevalence of disability by different correlates which will have number of policy implications. The study utilized data from the National Family Health Survey-5 (NFHS-5) and population projections report for India and States 2011 -2036. Population projections for 2021 were derived using the Cohort Component method, integrating demographic factors. Data on disability prevalence were sourced from NFHS-5, and state-wise population projections were obtained from the Registrar General of India. The study calculated the burden of disability in India and its states, considering both prevalence and total numbers. The national prevalence of disability in India is 0.96%, representing approximately 1.3 crore (13 million) individuals. States with the highest prevalence include Lakshadweep (1.69%), Tamil Nadu (1.28%), Maharashtra (1.21%), and Punjab (1.22%). Conversely, Arunachal Pradesh (0.55%), Jharkhand (0.63%), and NCT of Delhi (0.65%) exhibit the lowest prevalence. The type of disability further varies distinctly by States in India. Understanding the prevalence of disability in India is crucial for developing effective policies and interventions. Study emphasizes the disparities across states, signalling the importance of tailored approaches to address the diverse needs of individuals with disabilities.

Keywords

Disability, India, NFHS-5, Population Projections, Prevalence, Targeted Interventions, Disabilities, Socio-economic Disparity.

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Introduction

A disability is a physical, mental, cognitive, or developmental condition that limits a person's ability to participate in daily activities and interactions (Drake, 2001; Martin, 2013). According to the Convention on the Rights of Persons with Disabilities, people with disabilities (PwDs) include those who have long-term physical, mental, intellectual, or sensory impairments (Bantekas, Stein and Anastasiou, 2018). These impairments can interact with various barriers to hinder their full and effective participation in society. Persons with disabilities always need special care and attention to lead a normal life or to realize their full potential. Along with the physical and mental support, people with disabilities need a conducive environment with all requisite infrastructure to realize their overall potential or wellbeing (WHO, 2001; Edwards & Tsouros, 2006; Varshney, 2007). However, due to the changing nature of societal and familial life, the needs of people with disabilities are often overlooked or neglected (Foley & Chowdhury, 2007). In certain cases, the healthcare and other infrastructural needs of PwDs are unattended due to its high cost or inaccessibility in the locality. The situation is even worst among disadvantaged social groups and in difficult geographical regions (Hari, 2016; Gupta, de Witte, & Meershoek, 2021; Upadhyay, Bhatnagar and Holloway *et al.*, 2022).

India with nearly 1.4 Billion population regarded as one of the most populous country in the world (Population Projections for India and States 2011 – 2036, 2020). With such large population, it is imperative to have a significant size of PwDs. As per 2011 Census, the number of PwDs stood at 26.8 million (2.2 percent) at national level (ORGI,

2011). The number varies further by States and Geographical regions. Among the larger States, Tamil Nadu reported the lowest percent (*i.e.*, 1.6 percent) whereas Odisha (3 percent) recorded highest percentage of PwDs in the country. Among the PwDs, more than one-fifth were disable in seeing in Arunachal Pradesh (21 percent), Odisha (21 percent), Jharkhand (24 percent) and Bihar (24 percent). Nearly, one-third of PwDs were disable in seeing in Manipur. Most of North-eastern States *i.e.*, Meghalaya (28 percent), Sikkim (29 percent), Nagaland (30 percent) and Arunachal Pradesh (30 percent) exhibited PwDs with hearing impairment. The corresponding figure in Uttar Pradesh and Bihar was 24.7 and 24.5 percent respectively. Maharashtra (16 percent) and Goa (16.2 percent) had the highest number of PwDs with speech disability. Along with the Union Territories *i.e.*, Puducherry (30 percent), NCT of Delhi (29 percent), Daman & Diu (28 percent) and Chandigarh (26 percent), Chhattisgarh (31 percent), Rajasthan (27 percent), Madhya Pradesh (26 percent) and Tamil Nadu (24 percent) were the other bigger States recorded PwDs with movement issues. Two States each from Southern [*viz* Kerala (9 percent) and Tamil Nadu (8 percent)] and North-eastern [*viz* Mizoram (11 percent) and Manipur (8 percent)] regions recorded highest number of PwDs as mental retardation. Sikkim (16 percent), Dadra & Nagar Haveli (15 percent), Lakshadweep (14 percent), Mizoram (14 percent), Rajasthan (14 percent), Kerala (13 percent), Jammu & Kashmir (12 percent) and Himachal Pradesh (12 percent) reported the highest number of PwDs with multiple disability in the country as per 2011 Census (ORGI, 2011).

PwDs are one of the vulnerable sections of population and their needs varies largely and require special care and attention (Kumar, Roy & Kar, 2012; Saran, White & Kuper, 2020). Information on incidence and type of disability is prerequisite to have suitable evidence-based policies and programs for them (Brownson, Baker, Deshpande *et al.*, 2018). Now, more than a decade has been passed from 2011 Census, which happened to be one of the primary and reliable sources of information on PwDs. In the absence of Census, the accurate prevalence of disability along with their type is unknown even to the policy makers. This resulted into gross negligence of present needs of PwDs as the requirements of disability depends on their number and type. Further, the health infrastructure or other welfare provisions meant for PwDs is not identical across States in India. In certain States, the number of PwDs might have increased whereas the welfare provisions or infrastructure meant for PwDs still based on the 2011 Census. With this backdrop, this study is an attempt to shed light on the current prevalence of PwDs by States in India which will have number policy implications in India.

Data Source

In the absence of Census, this study accumulated the prevalence of PwDs including their type from latest round of National Family Health Survey round -5 (NFHS-5, 2019-21). Further, this study used the estimated population from Report on Population Projections for India and States, 2011 - 2036. This is published by National Commission on Population, Ministry of Health & Family Welfare, Government of India. In the absence of Population Census, the estimated population which generally comes from projection or forecasting based

on certain assumptions and available data can be used for policy and program formulation. This process involves statistical techniques to predict the future course of fertility and mortality rates, taking into consideration various factors that affect population dynamics, such as health intervention strategies, food production, socio-cultural setting, climatic conditions, politico-economic conditions, and others. The accuracy of population projections depends on the quality of data used and the validity of assumptions made. More details including the methodologies adopted in NFHS - 5 and for projection of population may be ascertained from its reports.

Methodology

This study is descriptive (cross sectional study design) in nature attempted to transform the prevalence of disability from NFHS - 5 in absolute number by applying it with the projected population for the year 2021. The year 2021 is important as because it coincides with the Census year after 2011. Further, the reference period of NFHS-5 also accords for the period from 2019 to 2021. This estimation is done for all States in India. Further, the prevalence of disability in absolute number is assessed by gender, age groups and by different types of disability for India and States. For better understanding, the results were presented in Maps, graphical and tabular formats.

Operational definition: In the **Supplementary File**, we have mentioned operational definitions for different types of disabilities based on the data presented in the NFHS-5 report.

Results

At national level, the prevalence of PwDs is less than one percent (0.96 percent). In absolute terms, nearly 13 million people are

disable for the year 2021. This is less than half of the 2011 Census estimates. This is true even for both sexes. Little over one percent (1.16) and 0.76 percent of male and female were disable respectively. The corresponding estimated absolute number are 7 and 6.6 million respectively – lower than the prevalence in 2011 Census.

As per 2021 estimates, around 21 lakhs (0.16 percent), 24 lakhs (0.18 percent), 16 lakhs (0.12 percent), 26 lakhs (0.19 percent) and 50 lakhs (0.37 percent) people were disable in hearing, speech, visual, mental and locomotor respectively at national level. Age and prevalence of disability is positively associated. This is true across type of disability at national level in 2021. More than 2 percent aged 80 and above and less than one percent (0.3 percent) aged 0 to 4 years had any disability. Nonetheless, in absolute number, the prevalence is more among aged 15 to 49 years as per 2021 estimates. Contrary to this, in absolute number, more people at younger ages are disable in speech, visual and mental than their counterpart people at older ages (Table 1).

Along with the Southern states *i.e.*, Tamil Nadu (1.28 percent), Karnataka (1.23 percent) and Kerala (1.16 percent) few other states *i.e.*, Punjab (1.22 percent), Maharashtra (1.21 percent) and Madhya Pradesh (1.19 percent) recorded highest prevalence of any disability. However, in absolute number, Uttar Pradesh (16,69,230), Maharashtra (15,10,228), Bihar (11,12,214), West Bengal (10,32,336) and Madhya Pradesh (10,04,306) reported highest number of estimated persons with any disability in 2021.

Prevalence of disability in hearing is relatively higher in North-eastern States *i.e.*, Nagaland (0.29 percent), Mizoram (0.24 percent), Tripura (0.22 percent), Arunachal Pradesh (0.21 percent), Manipur (0.20

percent), Meghalaya (0.20 percent), Assam (0.19 percent) than the Northern States *i.e.*, Haryana (0.10 percent), Himachal Pradesh (0.10 percent), Rajasthan (0.11 percent) and Punjab (0.14 percent). Tamil Nadu (0.35 percent), Jammu & Kashmir (0.21 percent) and West Bengal (0.20 percent) were the other larger States recorded significant percentage of disability in hearing. In absolute number, Tamil Nadu (2,67,591), Uttar Pradesh (2,41,252), Maharashtra (2,12,711) and West Bengal (1,95,999) had the highest number of estimated disable persons in hearing (Table 2).

Sikkim (0.48 percent), Tripura (0.26 percent), Manipur (0.23 percent), Odisha (0.23 percent), West Bengal (0.23 percent), Tamil Nadu (0.22 percent) and Andhra Pradesh (0.20 percent) recorded highest percentage of disable in speech in 2021. Nevertheless, the prevalence in absolute number is more in Uttar Pradesh (3,84,186), Bihar (2,30,814), West Bengal (2,23,739) and Maharashtra (2,01,120). Maharashtra (2,59,271) and West Bengal (1,84,269) logged higher prevalence of disable in visual in 2021. Kerala (0.38 percent), Meghalaya (0.34 percent) and Manipur (0.31 percent) registered highest prevalence of mental disability. Absolute number for the corresponding disability is higher in Uttar Pradesh (3,83,882), Maharashtra (2,58,567) and Bihar (2,04,405). Similarly, Uttar Pradesh (6,88,262), Maharashtra (5,76,787), Madhya Pradesh (4,73,955) and Bihar (4,57,437) recorded highest number of disable in locomotor.

Discussion

Prevalence of disability increased during the inter-censal period *i.e.*, from 2001 to 2011. Overall, the proportion increased from 2.13 percent in 2001 to 2.21 percent in 2011. This pattern was observed even by place of residence and gender. However, the estimates drawn from

Table 1 Percentage (%) and number (n) of population having disability in India by age-group and sex as per NFHS-5 for the period 2019 to 2021

Background Characteristic	^b Type of disability and their burden by age and sex in India, 2019-2021														^a India's Population, 2021
	Any		Hearing		Speech		Visual		Mental		Locomotor		Other		
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	
Age group															
0-4	0.29	3,34,653	0.05	59,254	0.11	1,24,867	0.04	46,390	0.05	61,258	0.13	1,51,566	0.03	32,678	11,42,73,000
5-9	0.60	7,01,379	0.12	1,37,642	0.24	2,85,653	0.07	87,319	0.16	1,84,276	0.21	2,46,007	0.05	55,797	11,76,66,000
10-14	0.73	8,61,475	0.12	1,36,273	0.25	2,93,468	0.09	1,09,156	0.22	2,56,033	0.24	2,79,454	0.07	78,709	11,80,51,000
15-19	0.84	10,41,932	0.14	1,71,593	0.23	2,82,997	0.09	1,11,107	0.28	3,48,394	0.25	3,10,920	0.09	1,10,960	12,42,82,000
20-24	0.88	11,13,436	0.11	1,39,711	0.20	2,51,666	0.10	1,21,960	0.28	3,58,842	0.29	3,72,267	0.09	1,10,352	12,72,44,000
25-29	0.96	11,46,035	0.13	1,59,969	0.19	2,33,359	0.10	1,21,089	0.26	3,06,742	0.34	4,09,597	0.09	1,05,944	11,99,00,000
30-34	1.06	11,64,658	0.12	1,27,697	0.18	1,92,140	0.11	1,21,644	0.24	2,67,658	0.45	4,96,126	0.11	1,22,820	10,95,75,000
35-39	1.14	11,23,959	0.15	1,49,739	0.18	1,78,897	0.11	1,10,441	0.22	2,16,125	0.48	4,77,635	0.14	1,34,069	9,88,63,000
40-44	1.23	10,87,821	0.17	1,54,888	0.19	1,67,197	0.13	1,17,624	0.27	2,35,904	0.50	4,44,564	0.14	1,23,035	8,87,65,000
45-49	1.06	8,50,803	0.16	1,27,214	0.13	1,02,251	0.15	1,16,886	0.17	1,38,984	0.46	3,67,914	0.13	1,01,641	8,01,07,000
50-54	1.10	7,65,777	0.16	1,13,362	0.12	82,598	0.17	1,21,423	0.16	1,08,928	0.43	2,98,172	0.16	1,09,863	6,95,66,000
55-59	1.11	6,34,808	0.20	1,14,507	0.10	60,000	0.15	83,285	0.13	72,787	0.47	2,69,622	0.14	80,545	5,71,44,000
60-64	1.23	5,47,135	0.22	96,959	0.13	55,783	0.18	79,066	0.11	48,834	0.51	2,27,186	0.18	79,425	4,45,44,000
65-69	1.48	5,09,135	0.29	1,01,326	0.11	36,701	0.22	74,002	0.10	35,217	0.66	2,27,799	0.22	73,986	3,44,06,000
70-74	1.74	4,60,813	0.39	1,04,226	0.12	30,506	0.30	78,975	0.08	22,466	0.76	2,01,595	0.19	49,945	2,64,50,000
75-79	1.84	3,22,632	0.52	91,845	0.09	16,598	0.28	49,074	0.11	19,197	0.68	1,19,262	0.25	44,199	1,75,63,000
80+	2.11	3,08,076	0.70	1,02,929	0.12	17,208	0.44	64,525	0.14	20,683	0.79	1,14,734	0.15	21,497	1,46,07,000
Sex															
Male	1.16	80,98,095	0.17	11,93,057	0.20	14,16,111	0.14	9,60,151	0.23	15,85,314	0.48	33,34,642	0.14	9,51,075	70,06,23,000
Female	0.76	50,29,866	0.14	9,37,114	0.15	9,96,988	0.10	6,85,708	0.16	10,85,780	0.27	17,65,294	0.08	5,13,451	66,23,83,000
Total/India	0.96	13038266	0.16	2123584	0.18	2401433	0.12	1638242	0.19	2656946	0.37	5052680	0.11	1451370	1363006000

Note: Estimation is based on the responses of the respondent to the household questionnaire in NFHS-5, 2019-21

Bold represents disability information for the entire country.

^a National Commission on Population-Ministry of Health & Family Welfare-Government of India. Census of India, 2011. Population projections for India and States 2011-2036. Report of the Technical Group on Population Projections.

^bType of disability data taken from National Family Health Survey round-5 (2019-2021).

Table 2 Percentage (%) and number (n) of population having disability in India and its states as per NFHS-5 for the period 2019 to 2021

India/States	Type of disability and their burden in India and its states, 2019-2021														India's Population, 2021
	Any		Hearing		Speech		Visual		Mental		Locomotor		Other		
	%	n	%	n	%	n	%	n	%	n	%	n	%	n	
India	0.96	1,30,38,266	0.16	21,23,584	0.18	24,01,433	0.12	16,38,242	0.19	26,56,946	0.37	50,52,680	0.11	14,51,370	1,36,30,06,000
A & N Islands*	0.95	3,786	0.13	509	0.22	882	0.12	470	0.22	865	0.31	1,237	0.14	573	4,00,000
Andhra Pradesh	0.88	4,63,164	0.16	84,960	0.20	1,05,263	0.09	45,205	0.15	79,804	0.27	1,43,924	0.18	94,267	5,27,87,000
Arunachal Pradesh	0.55	8,432	0.21	3,161	0.13	1,924	0.08	1,196	0.08	1,154	0.13	1,966	0.02	306	15,33,000
Assam	0.77	2,69,763	0.19	64,919	0.20	69,655	0.14	47,586	0.16	56,588	0.19	66,855	0.09	30,393	3,50,43,000
Bihar	0.90	11,12,214	0.14	1,70,358	0.19	2,30,814	0.11	1,30,752	0.17	2,04,405	0.37	4,57,437	0.09	1,15,522	12,30,83,000
Chandigarh*	0.83	10,050	0.32	3,899	0.18	2,226	0.07	805	0.22	2,696	0.28	3,420	0.01	122	12,08,000
Chhattisgarh	0.88	2,58,108	0.14	42,110	0.17	49,865	0.11	31,430	0.16	46,375	0.36	1,05,004	0.10	30,639	2,94,93,000
D & N H and D & D	0.68	7,367	0.09	957	0.13	1,442	0.06	689	0.20	2,190	0.32	3,458	0.11	1,230	10,77,000
Goa	0.72	11,213	0.18	2,786	0.17	2,685	0.06	1,002	0.24	3,802	0.13	2,015	0.07	1,145	15,59,000
Gujarat	0.83	5,81,149	0.11	74,367	0.13	87,747	0.10	70,111	0.19	1,33,438	0.34	2,35,493	0.10	67,619	6,97,88,000
Haryana	0.78	2,31,057	0.10	30,253	0.14	40,954	0.08	22,672	0.18	53,516	0.37	1,09,837	0.07	20,327	2,94,93,000
Himachal Pradesh	0.61	45,264	0.10	7,130	0.11	8,228	0.08	5,939	0.19	14,221	0.19	14,079	0.08	5,735	73,94,000
Jammu & Kashmir	0.78	1,05,099	0.21	28,100	0.15	19,925	0.13	17,076	0.16	21,471	0.22	30,144	0.06	7,588	1,34,08,000
Jharkhand	0.63	2,43,236	0.10	39,549	0.18	69,860	0.05	21,089	0.15	57,818	0.24	90,526	0.03	12,716	3,84,71,000
Karnataka	1.23	8,25,036	0.18	1,21,383	0.19	1,29,320	0.12	79,196	0.22	1,47,605	0.43	2,90,520	0.26	1,72,930	6,68,45,000
Kerala	1.16	4,09,995	0.17	58,858	0.16	56,424	0.09	33,562	0.38	1,34,815	0.45	1,61,013	0.06	22,095	3,54,89,000
Ladakh*	1.09	3,249	0.40	1,186	0.24	701	0.23	687	0.22	649	0.14	417	0.00	0	2,97,000
Lakshadweep*	1.69	1,149	0.25	172	0.26	175	0.16	111	0.70	479	0.52	357	0.04	26	68,000
Madhya Pradesh	1.19	10,04,306	0.15	1,29,708	0.16	1,32,812	0.15	1,23,725	0.23	1,91,111	0.56	4,73,955	0.10	88,736	8,45,16,000
Maharashtra	1.21	15,10,228	0.17	2,12,711	0.16	2,01,120	0.21	2,59,271	0.21	2,58,567	0.46	5,76,787	0.18	2,19,348	12,44,37,000
Manipur	1.03	32,636	0.20	6,373	0.23	7,259	0.12	3,659	0.31	9,699	0.20	6,393	0.20	6,301	31,65,000
Meghalaya	0.80	26,209	0.20	6,520	0.15	5,093	0.11	3,671	0.20	6,722	0.17	5,634	0.08	2,516	32,88,000
Mizoram	0.83	10,048	0.24	2,917	0.14	1,658	0.05	648	0.34	4,177	0.17	2,062	0.03	397	12,16,000
Nagaland	0.85	18,662	0.29	6,356	0.16	3,551	0.15	3,246	0.17	3,668	0.21	4,511	0.06	1,366	21,92,000
NCT of Delhi*	0.65	1,34,539	0.07	14,376	0.09	19,311	0.05	10,803	0.13	26,050	0.33	68,140	0.09	18,058	2,05,71,000
Odisha	0.97	4,43,423	0.16	75,143	0.23	1,06,562	0.12	55,350	0.24	1,11,939	0.35	1,59,329	0.06	27,725	4,56,96,000
Puducherry*	1.04	16,272	0.23	3,664	0.18	2,799	0.18	2,771	0.27	4,297	0.24	3,734	0.10	1,624	15,72,000
Punjab	1.22	3,69,476	0.14	41,356	0.17	52,936	0.10	30,932	0.22	67,759	0.53	1,60,628	0.24	71,663	3,03,39,000
Rajasthan	0.75	5,96,093	0.11	88,357	0.13	1,06,421	0.10	75,918	0.16	1,30,714	0.35	2,80,823	0.05	40,130	7,92,81,000
Sikkim	1.09	7,371	0.48	3,252	0.48	3,264	0.07	476	0.12	836	0.28	1,891	0.04	275	6,77,000
Tamil Nadu	1.28	9,77,826	0.35	2,67,591	0.22	1,69,956	0.13	98,245	0.25	1,88,051	0.39	3,00,700	0.13	1,00,611	7,64,02,000
Telangana	1.06	4,01,675	0.17	63,274	0.19	69,888	0.14	52,319	0.17	64,769	0.43	1,60,352	0.12	44,200	3,77,25,000
Tripura	1.02	41,443	0.22	9,101	0.26	10,472	0.12	4,900	0.19	7,839	0.30	12,409	0.14	5,772	40,71,000
Uttar Pradesh	0.72	16,69,230	0.10	2,41,252	0.17	3,84,186	0.08	1,96,022	0.17	3,83,882	0.30	6,88,262	0.06	1,31,915	23,09,07,000
Uttarakhand	0.90	1,02,815	0.09	10,399	0.16	17,899	0.10	10,983	0.26	29,380	0.42	48,013	0.03	3,811	1,13,99,000
West Bengal	1.05	10,32,336	0.20	1,95,999	0.23	2,23,739	0.19	1,84,269	0.20	1,97,981	0.37	3,64,504	0.09	92,471	9,81,25,000

Note: - Estimation is based on the responses of the respondent to the household questionnaire in NFHS-5, 2019-21

*: Union territory; A & N Islands: Andaman & Nicobar Islands; D & N H and D & D: Dadra & Nagar Haveli and Daman & Diu

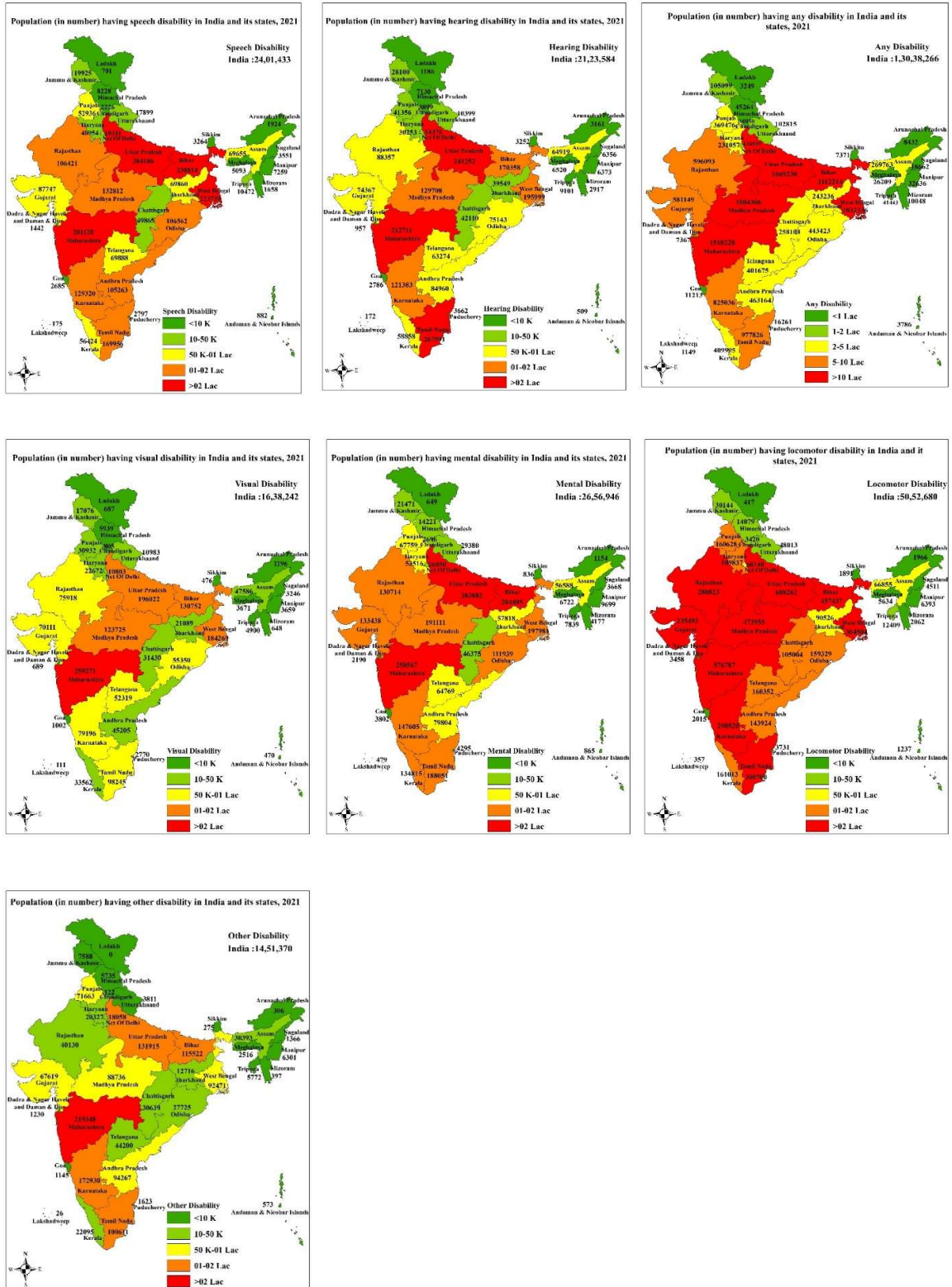


Figure 1 Population having type of disability in India and its states, 2021

NFHS-5 suggests that, there is a decline in the prevalence of disability at national level in 2021. The decline in fact more than halved during the period from 2011 to 2021 (0.96 percent). In absolute number, 26.8 million people were disable in 2011 which has decreased to around 13 million in 2021, as estimated from population projection report by taking prevalence of disability (0.96 percent) from NFHS-5 (IIPS and ICF, 2021). This is contrary to the estimation of recently concluded NSSO which recorded disability at 2.2 percent at national level in 2018. A separate analysis on sampling design and tools employed to measure disability in NFHS and NSSO may clarify such differential in the prevalence which is out of purview of this study (NSSO, 2018; IIPS and ICF, 2021).

Prevalence of disability by age group further suggests that, disability and age is positively associated. People at higher ages are more disable than younger people. More than 2 percent (2.11 percent) of population aged 80+ were disable than only 0.29 percent of younger population aged 0-4 years with disability. This pattern is observed even for disability in hearing and visual at national level. As high as 0.7 and 0.4 percent of population aged 80+ are disable in hearing and visual respectively. The corresponding figure for population aged 0-4 years are 0.05 and 0.04 percent respectively. Contrary to this, mental disorder or disability found to be more common among population aged 10-44 years - higher among population aged 15 to 24 years (Population Projections for India and States 2011 - 2036, 2020, IIPS and ICF, 2021).

The state level analysis suggests a distinct picture wherein prevalence of disability is more in southern regions *i.e.*, Tamil Nadu (1.28 percent), Karnataka (1.23 percent) and

Kerala (1.16 percent). Besides, Punjab (1.22), Maharashtra (1.21 percent) and Madhya Pradesh (1.19 percent) remained other larger states with significant prevalence of disability in 2021- higher than the national average (0.96 percent). In absolute number, Uttar Pradesh (16,69,230), Maharashtra (15,10,228), Bihar (11,12,214), West Bengal (10,32,336) and Madhya Pradesh (10,04,306) reported highest number of disable persons in 2021. Contrary to this, North-eastern states *i.e.*, Sikkim (7371), Arunachal Pradesh (8432), Mizoram (10048) and Nagaland (18662) recorded lowest number of people with disability (Population Projections for India and States 2011 - 2036, 2020, IIPS and ICF, 2021).

Similarly, prevalence of different types of disability varies considerably across States in India. In a nutshell, disability in hearing is more in North-eastern regions. Yet, Tamil Nadu (267591), Uttar Pradesh (241252), Maharashtra (212711) and West Bengal (195999) exhibited highest number of people with disability in hearing in 2021. This pattern is observed even for people with disability in speech. Prevalence of people with disability in visual is higher in Maharashtra (0.21 percent) and West Bengal (0.19 percent) - higher than the national average (0.12 percent). Mental disorder (0.19 percent) remained as second most prevalent disability after locomotor (0.37) at national level in 2021. Kerala (0.38 percent), Mizoram (0.34 percent), Manipur (0.31 percent), Uttarakhand (0.26 percent) and Tamil Nadu (0.25 percent) revealed highest prevalence of mental disorder. Locomotor disability is widely prevalent across states. However, it is more in Madhya Pradesh (0.56 percent), Punjab (0.53 percent), Maharashtra (0.46 percent), Kerala (0.45 percent), Karnataka (0.43 percent), Telangana (0.43 percent),

Uttarakhand (0.42 percent) and Tamil Nadu (0.39 percent) – higher than the national average (0.37 percent) (Population Projections for India and States 2011 – 2036, 2020, IIPS and ICF, 2021).

Conclusion

India with nearly 1.4 Billion population exhibits number of challenges while addressing the diverse needs of its people. Among all, disables require special care and attention due to their distinct physical or mental attributes and need. For this purpose, information on number and category of disability has paramount importance before addressing their need. Hence, this study may be the first of its kind to assess the prevalence of disability in absolute number from the population projection estimations for the year 2021 which happened to be the Census year. The other novelty of this study is that, it estimated disability by its type and States. This emphasizes the need for tailored approaches to address the specific challenges faced by each state, considering the availability of healthcare, education, and social support.

In the absence of Census, the findings of this study provide a nuanced understanding of the prevalence of disability in India. Policymakers are urged to use the research findings to strategically allocate resources, ensuring that the diverse needs of individuals with disabilities are met. The emphasis on tailored approaches, based on the disparities across states, reinforces the call for nuanced and region-specific interventions that consider socio-economic disparities.

Strengths

Use of Comprehensive Data: The study used data from the National Family Health Survey-5 (NFHS-5) and Population

Projections report for India and States 2011 – 2036. Since both the data are from authentic sources, it may ensure a more accurate assessment of the burden of disability in India.

Focus on Age, Sex, and State Differentials: By examining age, sex, and state differentials, the research provides a nuanced understanding of the distribution of disability in India. This detailed analysis may allow for targeted interventions that consider the specific needs of different demographic groups.

Identification of Regional Disparities: The research highlights significant state-level variations in disability prevalence, shedding light on the regional disparities within India. This information may be valuable for policymakers in designing targeted interventions based on specific geographical contexts.

Limitations

Reliance on Survey Data: The study relies on data from NFHS-5, which is based on surveys. Surveys may have limitations such as recall bias or underreporting, which could affect the accuracy of disability prevalence estimates.

Assumption in Population Projections: The population projections are based on assumptions and predictions, introducing an element of uncertainty. The accuracy of the projections depends on the reliability of the underlying assumptions.

Policy Relevance: The study assessed the prevalence of disability for developing effective policies and interventions. Policymakers can use the information to allocate resources strategically, ensuring a more inclusive and fulfilling life for the disabled population.

Declarations

Availability of Data and Materials

The data of the current study are available in public domain at Ministry of Health and Family Welfare website ([Reports | Ministry of Health and Family Welfare | GOI \(mohfw.gov.in\)](#)).

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Funding declaration

This research did not receive any external funding or financial support from any agency or organization.

Author contributions

KKP and KD contributed equally to the conceptualization, design, and execution of the research. JG and RB were responsible for the overall supervision, commented on the manuscript, revised the manuscript, and approved the final version.

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