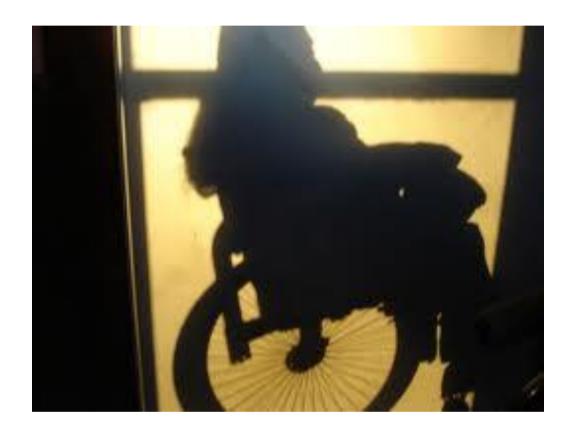
MANUAL ON DISABILITY STATISTICS





Government of India
Ministry of Statistics and Programme Implementation
Central Statistics Office
Sansad Marg, New Delhi
www.mospi.gov.in

CONTENTS

S. No.	Section	Page	
1.	Preface	li	
2.	Abbreviations & Acronyms	lii	
3.	Introduction	1-3	
4.	Chapter 1:Basic purpose of disability statistics, and their importance for	4-12	
	regular national statistics collections		
5.	Chapter 2: Features of the disability statistics collected through Census.	13-24	
6.	Chapter 3:Features of the disability statistics collected through National	25-30	
	Sample Surveys		
7.	Chapter 4 :Some measurement issues concerning quality and	31-35	
	comparability of data from surveys and censuses		
8.	Chapter 5 :International Scenario	36-38	
Annexure	I : Questions: Household Schedule (Census of India – 2001)	39-41	
Annexure	II : Questions: Household Schedule Census of India-2011	42	
Annexure	III : Instructions for enumerators on disability (Census of India-2011)	43	
Annexure	IV : Note on Sample Design and Estimation Procedure of NSS 58 th	44-60	
Round			
Annexure	V : Schedule 26 for Survey of Disabled Persons - NSS 58 th Round	61-71	
Annexure	VI : Some ICF terminology and definitions of disability	72-73	
Annexure VI: Report of Technical Advisory Committee on Disability Statistics			
Bibliography			



PREFACE

One of the mandates of the Central Statistical Organisation [CSO] is laying down norms and standards and evolving concepts, definitions, methodology and classification in relation to statistics. Even though the CSO has been performing these mandates in many fields of statistics, the absence of proper documentation in this regard led to a decision to prepare statistical manuals in respect of 24 subjects detailing concepts, definitions, classification procedures, compilation of data, estimating procedures, dissemination and other relevant explanatory notes, including methodological framework in the statistical indicators/statistics to make the manual comprehensive reference books.

This manual on Disabilities Statistics is one of series of 24 manuals on statistical indicators proposed to be brought out by the CSO. The basic purpose of this manual, like those of all other in the series, is to provide the users of disabilities data with a ready-to-use reference guide on methodological aspects of data (metadata) on disabilities based on harmonised concepts and methodologies that facilitate international comparison and help in aggregation of statistics to derive meaningful conclusions. The other purpose of this manual is to provide the statistical offices both at the national and state levels with guidelines in the compilation of disabilities data.

The materials included in this manual are expected to bring in harmonization in concepts, definitions and methodology of compilation of disabilities data. The adoption of the methodology suggested in this manual will go a long way in facilitating data aggregation and data comparison both at intra-regional and inter-regional levels, including international levels.

This manual has been prepared by Social Statistics Division of CSO under the guidance of Steering Committee for Preparation of Manuals on Statistical Indicators headed by the Director General, CSO. I congratulate to the team of officers, from the Social Statistics Division comprising Smt. S. Jeyalakshmi, Additional Director General, Shri Inderjeet Singh, Deputy Director General and Shri MP Diwakar, Assistant Director, for their excellent work done in bringing out this manual. I also thank the expert, Dr. J.P. Singh, Member Secretary, Rehabilitation Council of India, for reviewing the manual for its improvement to make the manual a comprehensive guide.

I hope that the manual will serve as a useful reference document on the subject. Any suggestion to further improve the contents of the manual is welcome.

(S. K. Das)

XDW

New Delhi

Dated: March 19, 2012

Director General Central Statistics Office

ABBREVIATIONS & ACRONYMS

CSO Central Statistics Office

NSSO National Sample Survey Office

PWD Act Persons with Disability (Equal Opportunities, Protection of Rights and Full

Participation) Act, 1995

RG & CCI Registrar General & Census Commissioner of India

MoSJE Ministry of Social Justice & Empowerment

MoSPI Ministry of Statistics & Programme Implementation

SNA System of National Accounts

NSS National Sample Survey

FSU First Stage Unit

UTs Union Territories

UFS Urban Frame Survey

SRSWOR Simple Random Sampling Without Replacement

PPSWR Probability Proportional to Size With Replacement

WHO World Health Organization

ICF International Classification of Functioning, Disability and Health

ICIDH International Classification of Impairments, Disabilities and Handicaps

ICD International Statistical Classification of Diseases and Related Health

Conditions

ESCAP United Nations Economic and Social Commission for Asia and the Pacific

NCO National Classification Of Occupations

UNCRPWD Unite Nations Convention of Rights of Persons with Disabilities

Introduction

(i) Prologue

There is an increasing recognition and emphasis on the needs and rights of people with disabilities which has resulted in a growing demand for information by the planners and policy makers involved in this field. The constitution of India ensures equality, freedom, justice and dignity of all individuals and implicitly mandates an inclusive society for all including persons with disabilities. The policies of the Government of India towards the welfare of persons with disabilities have been reflected in the enactments, schemes and through institutions established for various relevant activities. The Persons With Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 and National Policy for Persons with Disabilities released in 2006 are two of the initiatives which emphasized the importance given to this particular issue by the Government of India.

(ii) Definitions of Disability

World Health Organization

As per the **World Health Organization**; **Disability** is an umbrella term, covering impairments, activity limitations, and participation restrictions. Impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Thus disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives.

United Nations

The Convention on the Rights of Persons with Disabilities (2006), the first legally binding disability specific human rights convention, adopted by the **United Nations** gives two descriptions of disability. The Preamble to the Convention states that "**Disability results from** the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others." Again it emphasizes that "Persons with disabilities include those who have long term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others." Both the expressions reflect a shift from a medical model to social model of disability.

Medical model

In the **medical model**, individuals with **certain physical**, **intellectual**, **psychological** and **mental impairments are taken as disabled**. According to this, the disability lies in the individual as it is equated with restrictions of activity with the burden of adjusting with environment through cures, treatment and rehabilitation.

Social model

In contrast in the social model the focus is on the society, which imposes undue restrictions on the behavior of persons with impairment. In this, disability does not lie in

individuals, but in the interaction between individuals and society. It advocates that persons with disabilities are right holders and are entitled to strive for the removal of institutional, physical, informational and attitudinal barriers in society.

(iii) Disability Definition in Indian Context

In India, different definitions of disability conditions have been introduced for various purposes, essentially following the medical model and, as such, they have been based on various criteria of ascertaining abnormality or pathologic conditions of persons. In absence of a conceptual framework based on the social model in the Indian context, no standardisation for evaluating disability across methods has been achieved. In common parlance, different terms such as disabled, handicapped, crippled, physically challenged, are used inter-changeably, indicating noticeably the emphasis on pathologic conditions.

(iv) Sources of Disability Statistics

In any society estimation of the population suffering from physical or mental infirmities, with reasonable accuracy, is a challenging task. In the absence of a complete and perfect administrative statistics, recourse is taken through surveys and censuses in spite of their inherent limitations in netting rare personal characteristics. The Persons with Disabilities (Equal Opportunities, protection of Rights and Full Participation) Act which came into force in 1995, imposes specific obligation on the government to undertake surveys, investigation and research concerning causes of disability. In India, the major sources of statistics on disability are the decadal Population Censuses and the regular large scale sample surveys on disability conducted by National Sample Survey Office (NSSO). Data on prevalence of various forms of disabilities can be accessed from Census and NSSO data. The data related with access to services such as participation of CWSN (children with special needs) in school education can be accessed from report of MHRD (Statistics of School education), or training courses or available institute for special education can be accessed from website of Rehabilitation council of India. However, this manual restricts to the two data sources i.e. Census & NSSO.

(v) Purposes of the Manual on disability statistics

This Manual provides information on collection, compilation and dissemination of statistics on persons with disabilities, as also the difference between the definitions of various methods. While it is primarily aimed at statisticians in the collection of disability data, it is also useful to disability policy makers and program managers who develop the objectives of any data collection activity and will be the ultimate users of the resulting disability data.

(vi) Outline of the manual

- **Chapter 1** Describes the basic purpose of disability statistics, and their importance for regular national statistics collections
- **Chapter 2** Describes the basic features of the disability statistics collected through Census.

Chapter 3	Describes the basic features of the disability statistics collected through National Sample Surveys.
Chapter 4	Describes some measurement issues concerning quality of data from surveys and censuses.
Chapter 5	International Scenario
Annexure I	Questions: Household Schedule; Census of India – 2001
Annexure II	Questions from Household Schedule; Census of India – 2011
Annexure III	Instructions for enumerators on disability (Census of India – 2011)
Annexure IV	Note on Sample Design and Estimation Procedure of NSS 58 th Round
Annexure V	Schedule 26 for Survey of Disabled Persons - NSS 58 th Round
Annexure VI	Some ICF terminology and definitions of disability
Annexure VII	Report of the Technical Advisory Committee on Disability Statistics

Chapter 1

Basic purpose of disability statistics, and their importance for regular national statistics collections

Disability Statistics

- 1.1 Statistics is not about simple numbers; it is about data i. e. numbers in context. It is the context that makes a numbers meaningful and something worth considering. For example '10' does not make any sense, until and unless it was told that it is marks obtained out of total 20; and mean and standard deviation of the group is 13 and 2 respectively. Thus, statistics is about understanding the role of variability, which plays in drawing conclusions based on data. Statistical methods are used to organize, summarize, and draw conclusions from data. There can be a descriptive statistics or inferential statistics. Descriptive statistics includes methods for organizing and summarizing data. Inferential statistics involves generalizing from a sample to the population from which it was selected and assessing the reliability of such generalizations.
- 1.2 Traditionally, disability statistics has been conceived as a matter of counting people who fall into specific groups 'the blind', 'the deaf', 'wheelchair users' in order to determine who qualifies for benefits. With limited purpose in mind, this categorical approach gives a fragmented and distorted picture of disability since it suggests that person with disability fall neatly into a few categories with clear boundaries. However, disability statistics can provide a wealth of information on the full lived experience of persons with disabilities ranging from impairments, difficulties in undertaking and participating in activities, and barriers they face in their lives. Information can be extended from an individual to the whole population to **determine** prevalence of domains of disability and further developed by adding demographic or other population features, such as age, sex, race, and socio-economic status.
- 1.3 With a broader understanding of disability, disability statistics can play a pivotal role in all areas of policy-making and in each stage from development and implementation, to monitoring and assessment of effectiveness, to the analysis of cost-effectiveness. Below are some specific reasons why national disability statistics and valid disability databases are essential:
 - 1. Disability statistics as an evidence: At first stage, disability statistics provide information about problem it self, such as; from prevalence to incidence, to gender differences or causes of disability to issue of service utilization. These evidences have a great importance for policy formation as policy without valid and reliable data is potentially costly and wasteful guesswork; it is policy without a basis of evidence and good science. Invalid or incomplete disability data can be worse than no data at all.

- 2. Disability statistics for identification of target population for intervention: Information about functional status is integral to identify needs since two individuals with the same impairment may face different types of difficulties in undertaking certain activities, and so have different needs that require different kinds of interventions. Functional status data is essential for determining the broader social needs of persons with disabilities, such as provision of assistive technology for use in employment or education or broader policy and laws. Or cross-tabulation of disability prevalence rate by socio-demographic characteristics of the population, for instance, could show differences across the different age groups, sex, educational attainment, occupation, and others. These differences could then be used in order to identify priority groups of people for policy and program development.
- 3. Disability statistics for choosing a right and cost effective method for intervention: It helps in choosing an appropriate and cost effective model for intervention. Thus, helping in optimization as well in cost cutting.
- 4. Disability statistics for monitoring the quality of intervention: Population disability data is essential for monitoring the quality and outcomes of policies for persons with disabilities. In particular, these data help to identify policy outcomes that maximize the participation of persons with disabilities in all areas of social life from transportation and communication, to participation in religious and community life. The aspirations of the UN Disability Convention, Standard Rules and the BMF, Biwako Plus Five for the protection and promotion of the rights and the dignity of persons with disabilities are mere hopeful words without sound data to monitor and assess progress towards these goals.
- 5. Disability statistics for evaluation i. e. to tap outcome: Over time such information would indicate if the policy, program, or project implemented is successful or not as far as the targeted persons with disabilities are concerned. Beside this with valid and complete disability statistics, state agencies will have the tools for assessing the cost-effectiveness of policies for persons with disabilities, which in turn can provide the evidence to persuade governments of their ultimate benefit for all citizens.
- 1.4 Data on prevalence of various forms of disabilities can be accessed from Census and NSSO data. The data related with access to services such as participation of CWSN (children with special needs) in school education can be accessed from report of MHRD (Statistics of School education), or training courses or available institute for special education can be accessed from

website of Rehabilitation council of India, Some of the specific information which could directly relate to the formulation of policies is listed below:

1. Differences in rates of disability between males and females

Gender differences may indicate discrimination against a gender regarding service provision in the country. Hence, a definitive policy regarding equal access to facilities may be indicated.

2. Data on the cause of disability

Identification of the cause of disability may assist policymakers to make decisions about the type of preventive programs appropriate for the country. For instance, the main underlying causes of disability are malnutrition, diseases, congenital factors, accidents and violence, inadequate hygiene, landmine explosions, lack of access to a health care system, exposure to chemical substances and stresses most of which are preventable. Hence, in order to reduce the incidence of disability, strategies may be focused in these areas.

3. Differences in service utilization between the populations with and without disabilities

Policies may be formulated to increase access of population with disabilities in the different services and facilities, such as mandatory provision of ramps instead of stairs for those on wheelchairs.

4. Identification of physical and social barriers

Information on what types and causes of restrictions persons with disabilities are facing related to basic services is useful for determining the environmental and social barriers that most urgently need to be addressed. In India, identification of the type of assistive device most needed is important for the best allocation of funds.

5. Access to and participation in education and employment

The data may provide information on how persons with disabilities are integrated with the educational system and the labour market. This is a critical issue related to disability policy. Discrimination against persons with disabilities, and unwillingness to bear the costs of creating a more accessible environment e.g. at schools or workstations are key obstacles to the improvement of the lives of persons with disabilities.

Disability data may encourage governments to construct better facilities or provide tax incentives to schools or firms that accept persons with disabilities.

6. Income by age and type of disability

Poverty is one of the causes of disability. This is because the poor are more exposed to dangerous working and living conditions, including lack of access to healthcare facilities, and poor nutrition, among others. On the other hand, disability can also be a cause of poverty. This is particularly true if the persons with disabilities, and their caretakers, do not have the capacity to generate income for the family. Moreover, there may also be financial constraints brought about by the expensive medical treatment or assistive devices needed by persons with disabilities. Data on income as well as other information regarding the economic status of the household may provide insight into how poverty can affect disability and vice-versa.

1.5 Disability Statistics A Need: Persons with Disability (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995

Provision in the Act

- 1.5.1 The provisions contained in the Persons with Disability (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, imposes several obligations on the Central and State Governments for taking up various measures to ensure equal participation of people with disabilities in all walks of life. Section 25(a) of the Act specifically mentions that "within the limits of their economic capacity and development, the appropriate Governments and the local authorities, with a view to preventing the occurrence of disabilities, shall undertake or cause to be undertaken surveys, investigations and research concerning the cause of occurrence of disabilities". The National Policy for Persons with Disabilities has also recognized that "there is a need for regular collection, compilation and analysis of data relating to socio-economic conditions of persons with disabilities". The Policy has also envisaged that research be undertaken focusing on the following aspects:-
 - Socio-cultural aspects of disability, which inter alia include study of social attitude and behavioral patterns towards persons with disabilities.
 - Develop social indicators relating to the education of persons with disabilities so as to analyze the problems involved and take up programmes to improve access and opportunities
 - Generate statistics about the employment status of persons by type of disability especially for those who become disabled due to accidents and other disasters.
 - Study causes of different types and level of incidence of disabilities
- 1.5.2 The Persons with Disability (PWD) Act, defines disability in terms of extent of impairment of body structure and body function. The context in which the definitions of disability

and categories therein are being examined here relates to the classification of person, as disabled or not, by an enumerator who is given a short training in concepts and definitions. Therefore, the definitions under PWD Act need to be converted into definitions, which are simple and tangible from the point of view of the enumerator as well as the respondents.

A comparative statement of definitions for different types of disabilities is given below:

Category	Census 2001	NSSO	PWD Act
(i)Disability	Five types of disabilities identified	A person with restrictions or lack of abilities to perform an activity in the manner or within the range considered normal for a human being was treated as having disability. It excluded illness/injury of recent origin (morbidity) resulting into temporary loss of ability to see, hear, speak or move.	"Person with disability" means a person suffering from not less than forty per cent of any disability as certified by a medical authority; "Disability" means-(i) Blindness;(ii) Low vision;(iii) Leprosycured;(iv) Hearing impairment;(v) Loco motor disability;(vi) Mental illness;(vii) Mental retardation.
(ii)Mental disability	A person who lacks comprehension appropriate to his/her age will be considered as mentally disabled. This would not mean that if a person is not able to comprehend his/her studies appropriate to his /her age and is failing to qualify examination is mentally disabled	Persons who had difficulty in understanding routine instructions, who could not carry out their activities like others of similar age or exhibited behaviours like talking to self, laughing / crying, staring, violence, fear and suspicion without reason were considered as mentally disabled for the purpose of the survey. The "activities like others of similar age" included activities of communication (speech), self-care (cleaning of teeth, wearing clothes, taking bath, taking food, personal hygiene, etc.), home living (doing some household chores) and social skills.	"Mental illness" means any mental disorder other than mental retardation; "Mental retardation" means a condition of arrested or incomplete development of mind of a person which is specially characterized by sub normality of intelligence;
(iii)Visual disability	A person who cannot see at all (has no perception of light) or has blurred vision even with the help of spectacles will be treated as visually disabled. A person	By visual disability, it was meant, loss or lack of ability to execute tasks requiring adequate visual acuity. For the survey, visually disabled included (a) those who did not have any light perception - both eyes taken together and (b) those who had light perception	"Blindness" refers to a condition where a person suffers from any of the following conditions, namely:- (i) Total absence of sight. or

	with proper vision only in one eye will also be treated as visually disabled. A person may have blurred vision and had no occasion to test whether his/her eye- sight would improve by using spectacles. Such person would also be treated as visually disabled	but could not correctly count fingers of hand (with spectacles/contact lenses if he/she used spectacles/contact lenses) from a distance of 3 meters (or 10 feet) in good day light with both eyes open. Night blindness was not considered as visual disability.	(ii) Visual acuity not exceeding 6160 or 201200 (snellen) in the better eye with correcting lenses; or (iii) Limitation of the field of vision subtending an angle of 20 degree or worse; "Person with low vision" means a person with impairment of visual functioning even after treatment or standard refractive correction but who uses or is potentially capable of using vision for the planning or execution of a task with appropriate assistive device;
(iv)Hearing disability	A person who cannot hear at all or can hear only loud sound will be considered as having hearing disability. Also a person who cannot hear through one ear but the other is functioning normally is considered as having hearing disability.	This referred to persons' inability to hear properly. Hearing disability was judged taking into consideration the disability of the better ear. In other words, if one ear of a person was normal and the other ear had total hearing loss, then the person was judged as normal in hearing for the purpose of the survey. Hearing disability was judged without taking into consideration the use of hearing aids (i.e., the position for the person when hearing aid was not used). Persons with hearing disability might be having different degrees of disability, such as profound, severe or moderate. A person was treated as having 'profound' hearing disability if he/she could not hear at all or could only hear loud sounds, such as, thunder or understands only gestures. A person was treated as having 'severe' hearing disability if he/she could hear only shouted	"Hearing impairment" means loss of sixty decibels or more in the better ear in the conversational range of' frequencies;

		words or could hear only if the speaker was sitting in the front. A person was treated as having 'moderate' hearing disability if his/her disability was neither profound nor severe. Such a person would usually ask to repeat the words spoken by the speaker or would like to see the face of the speaker while he/she spoke or would feel difficulty in conducting conversations.	
(v)Speech disability	A person will be recorded as having speech disability if he/she is dumb. A person whose speech is not understood by a listener of normal comprehension and hearing will be considered having speech disability. A person who stammers but whose speech is comprehensible will not be classified as having speech disability.	This referred to persons' inability to speak properly. Speech of a person was judged to be disordered if the person's speech was not understood by the listener. Persons with speech disability included those who could not speak, spoke only with limited words or those with loss of voice. It also included those whose speech was not understood due to defects in speech, such as stammering, nasal voice, hoarse voice and discordant voice and articulation defects, etc.	Not included in Act.

(vi)Locomotor disability	A person who lacks limbs or is unable to use limbs normally, will be considered having movement disability. Absence of a part of a limb like a finger or a toe will not be considered as disability. However absence of all the fingers or toes or a thumb will make a person disabled by movement. Following persons will also be treated as having movement disability: - If any part of the body is deformed, - Who cannot move himself /herself or without the aid of another person or without the aid of stick etc, - If he/she is unable to move or lift or pick up any small article placed near him. - A person not able to move normally because of problems of joints like arthritis and has to invariably limp while moving	A person with - (a) loss or lack of normal ability to execute distinctive activities associated with the movement of self and objects from place to place and (b) physical deformities, other than those involving the hand or leg or both, regardless of whether the same caused loss or lack of normal movement of body — was considered as disabled with locomotor disability. Thus, persons having locomotor disability included those with (a) loss or absence or inactivity of whole or part of hand or leg or both due to amputation, paralysis, deformity or dysfunction of joints which affected his/her "normal ability to move self or objects" and (b) those with physical deformities in the body (other than limbs), such as, hunch back, deformed spine, etc. Dwarfs and persons with stiff neck of permanent nature who generally did not have difficulty in the normal movement of body and limbs was also treated as disabled.	"Locomotor disability" means disability of the bones, joints muscles leading to substantial restriction of the movement of the limbs or any form of cerebral palsy. "Cerebral palsy" means a group of non-progressive conditions of a person characterized by abnormal motor control posture resulting from brain insult or injuries occurring in the prenatal, peri-natal or infant period of development.
(vii) Leprosy cured person			"Leprosy cured person" means any person who has been cured of leprosy but is suffering from-

	(i) Loss of sensation in hands or feet as well as loss of sensation and paresis in the eye and eye-lid but with no manifest deformity; (ii) Manifest deformity and paresis; but
	having sufficient mobility in their hands and feet to enable them to engage in normal economic activity; (iii) Extreme physical
	deformity as well as advanced age which prevents him from undertaking any gainful occupation, and the expression "leprosy cured" shall be construed accordingly.

1.5.3 The soft copy of the Persons with Disability (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 can be accessed at the web-site of the Ministry of Social Justice & Empowerment on the Uniform Resource Locator (URL);

http://socialjustice.nic.in/pwdact1995.php

Chapter 2

Features of the disability statistics collected through Census

Population Census

- 2.1 The history of collection of data on disability/ infirmity dates back to the inception of modern Indian Census in 1872. The questionnaire of the 1872 Census included questions not only on physically and mentally infirm but also persons affected by leprosy. Collection of information on infirmities in each of the successive decadal censuses continued till 1931. However, in view of the serious doubts expressed by the then Census Commissioners about the authenticity and quality of data collected on infirm population, the enumeration of physically disabled persons was discontinued during the 1941 Census. It was felt that question on disabled population did not lend themselves to a census enquiry since these did not seem to provide accurate data due to variety of reasons particularly due to the social stigma attached with this characteristic. No attempt was made to collect information on disability through census of 1951, 1961, 1971.
- 2.2 After a gap of 50 years, a question on disabilities was again canvassed at the 1981 Census. Since 1981 had been proclaimed as the "International Year for the Disabled" it resulted in inclusion of a question on disability during censuses the world over and India was no exception to it. However, the question on only three broad categories of physical disabilities, viz. 'Totally Blind', 'Totally Dumb' and 'Totally Crippled', was canvassed during the House listing Operations of 1981 Census. When the results of 1981 Census were finally available, it was felt that there was considerable under enumeration of physically handicapped persons. The 1981 Census results also supported the views expressed by the earlier Census Commissioners that the enumeration and determination of the physically handicapped and their characteristics were beyond the scope and capacity of Census Operations due to the complexity of the definition of disability and inherent reservations of the population to share this information with the enumerator usually a local government official.
- 2.3 Information collected during 1981 Population Census was on totally blind, totally dumb and totally crippled.

The definitions used for Physically Handicapped persons in 1981 Census were as follows:

- The totally Blind are those who suffer from total absence of sight.
- The deaf are those in whom the sense of hearing is non-functional for ordinary purposes of life. Generally a loss of hearing at 70 decibels or above at 500, 1000, 2000 frequencies will make residual hearing non-functional.
- The orthopaedically handicapped are those who have a physical defect or deformity,
- Which causes an undue interference with the normal functioning of the bones, muscles and joints.

The question on disability was not canvassed again at the 1991 Census of India.

- 2.4 The question on disability was again incorporated in census of India 2001 under the pressure from the various stakeholders and obligation under PWD Act, 1995, although it was generally felt that it was difficult to collect accurate information on disability during the census enumeration process. Further, the concepts and definitions spelt out in the act were found to be difficult to canvass in the in the absence of expert investigator specifically trained for the purpose. However, considering its advantage of comprehensive coverage of population characteristics and scope to provide estimates at sub-state level the decision to include the question on disability for all the members of the households was finally agreed upon. The findings of Population Census of 2001 on disability and 1981 Census were not quite comparable due to difference in coverage and definitions.
- 2.5 Keeping in view the recommendations of the **Technical Advisory Committee [TAC]** on disability statistics, which was constituted by Ministry of Statistics & Programme Implementation [MoSPI], the question on disability, was expanded and three questions were canvassed during Census-2011 instead of one. The definitions were also aligned with the recommendations of the TAC. The results are not yet out.

Census 2001

2.6 The schedule for enquiry of the census was already lengthy, therefore only one Question on disability was included in Census Schedule of 2001, Population Census as a result of request made by the Ministry of Social Justice and Empowerment, the then Ministry of Planning and Programme Implementation and the sustained efforts made by various NGOs/organizations working for the welfare of disabled in the country. The actual question canvassed and the definitions used to obtain information on various types of disabilities in the Census 2001 are reproduced below:

Q15. If a person is disabled, enter only one of the five disabilities for that person, in codes, as given below:

In Seeing	1
In Speech	2
In Hearing	3
In Movement	4
Mental	5

Definitions and instruction used for census 2001

2.7 The definitions and instruction for recording five types of disabilities for census purpose are given below:

In Seeing:

2.7.1 A person who cannot see at all (has no perception of light) or has blurred vision even with the help of spectacles will be treated as visually disabled and **code '1'** will be entered under this question. A person with proper vision only in one eye will also be treated as visually

disabled. The enumerator may come across situations where a person may have blurred vision and had no occasion to test whether her /his eyesight could improve by using spectacles. Such persons would be treated as visually disabled.

In Speech

2.7.2 A person will be recorded as having speech disability, if she / he is dumb. Similarly persons whose speech is not understood by a listener of comprehension and hearing, she/he will be considered to having speech disability and **code '2'** will be entered. This question will not be canvassed for children up to three years of age. Persons who stammer but whose speech is comprehensible will not be classified as disabled by speech.

In Hearing

2.7.3 A person who cannot hear at all (deaf) or can hear only loud sounds will be considered as having hearing disability and in such cases **code '3'** be entered. A person who is able to hear, using hearing-aid will not considered as disabled under this category. If a person cannot hear through one ear but her/his other ear is functioning normally, should be considered having hearing disability.

In Movement

2.7.4 A person who lacks limbs or is unable to use the limbs normally, will be considered having movement disability and **code '4'** will be entered here. Absence of a part of a limb like a finger or a toe will not be considered as disability. However, absence of all the fingers or toes or a thumb will make a person disabled by movement. If any part of the body is deformed, the person will also be treated as disabled and covered under this category. A person who cannot move herself/himself or without the aid of another person or without the aid of stick. etc., will be treated as disabled under this category. Similarly, a person would be treated as disabled in movement if she/he is unable to move or lift or pick up any small article placed near her/him. A person may not be able to move normally because of problems of joints like arthritis and has to invariable limp while moving, will also be considered to have movement disability.

Mental:

2.7.5 A person who lacks comprehension appropriate to her/his age will be considered as mentally disabled and **code '5'** will be entered. This would not mean that if a person is not able to comprehend her/his studies appropriate to her/his age and is failing to qualify her/ his examination is mentally disabled. Mentally retarded and insane persons would be treated as mentally disabled. A mentally disabled person may generally depend on her/his family members for performing daily routine. It should be left to the respondent to report whether the member of the household is mentally disabled and no tests are required to be applied by the enumerator to judge the member's disability.

Multiple Disability

2.7.6 If a person suffered from two or more types of disabilities, only one of these was recorded. In such cases it was left to the respondent to decide as to the type of disability she / he wants the member of her / his household to be classified into.

2.7.7 From a policy perspective it is important to record multiple disabilities in a separate category, as their needs are different, thus have different programmatic implications. Persons with temporary disability on the date of enumeration were not considered as disabled.

Questionnaire of Household Schedule

- 2.8 A copy of the Questionnaire of Household Schedule of Census of India 2001, which contained the question on disability, is given in **Annexure I**.
- 2.9 The Population Census certainly has the advantage of providing complete population coverage. Unfortunately, it is difficult to collect accurate information about disability in a census since time constraints make it unlikely that more than 4 to 6 general disability questions can be asked. Censuses, in some instances, also undercount children with disabilities and people with mild or moderate disabilities (in cases where the response categories are limited to 'Yes or No' options only). Still, for a crude measure of disability, and in the absence of other collection instruments, the census is useful.

Census 2011

- 2.10 The three actual questions canvassed and the definitions used to obtain information on various types of disabilities in the Census 2011 are reproduced below:
 - 9(a) Is this person mentally/physically disabled?
 - Yes 1
 - No- **2**

If the person has a disability please put Code No. 1. If the person does not have a disability, put Code No. 2.

- 9 (b) If 'YES' in 9 (a), give code in the box against 9 (b) from the list given below.
- 9 (c) If 'multiple disability' (Code 8) in 9(b), give maximum three codes in boxes against 9(c) from the list given below.

Codes:

- In Seeing 1
- In Hearing 2
- In Speech 3
- In Movement 4
- Mental Retardation 5
- Mental Illness 6
- Any other 7
- Multiple Disability 8

Definitions and instruction used for census 2011

2.11 The enumerators were instructed not be in a hurry to write the Code of disability and ask if the person has more than one disability.

To whom the question on disability to be asked:

2.12 The question(s) on disability was asked for all persons in the household. The enumerator was instructed not to assume that just because someone looks 'alright' or 'normal', she/he may not have disability. Many disabilities may not be visible. Sometimes elderly/old people are not asked the question. However, it is important to ask them also. With age, a lot of people acquire disability.

How to ask the question on disability?

- 2.13 This was a sensitive question and the enumerator was instructed to ask carefully/skillfully so that the feelings of the respondent and/or any other member of the household are not hurt. The enumerator was instructed to first explain that the data on disability would be useful for the following purposes:
 - It will help the Government to plan policies, allocate adequate resources and provide support services for persons with disabilities and their families.
 - It will help in taking adequate measures to provide equal opportunities in education and employment for people with disabilities.
 - It will help in making public transportation, health services accessible to people with disabilities.
- 2.14 The enumerator was instructed to find out if any member of the household has any form of mental and/or physical disability. While the main respondent may be answering all the questions he has to make every possible effort to seek information from the disabled member of the household herself/himself, if she/he was present at the time of census taking and was able to provide correct information.
- 2.15 Asking persons about their disabilities can be a very sensitive issue. While some respondents may openly share the information on disability, some may feel hesitant to disclose that there is a person with disability in the house. Some may feel angry or uneasy and instead may ask him why was the enumerator asking this question. The enumerator needs to be very polite and effective while probing whether the person has any form of mental/physical disability. The quality of data largely depends on the enumerator's personal efforts. Hence, it was important that the enumerator ask the question in a sensitive manner. The enumerator was instructed to follow the guidelines listed below to effectively canvass the question on disability:
 - Build rapport with the respondent/s: It is important to put the respondent at ease to answer the question related to disability. The enumerator's friendly and respectful manner and language may help him gain their confidence and respect.
 - Share the reason for asking question on disability: It is extremely important to share it with the respondent proactively as to how the information on disability will help the Government (in formulating policies and in providing facilities for people with

disabilities).

The enumerator was instructed to:

- Use simple and non-derogatory language.
- Explain disability in terms of difficulty in doing any functions of daily living (taking care of oneself, gaining education, taking up a job) or participating in all/some spheres of life.

The enumerator was instructed to tell the respondents that the confidentiality will be maintained i.e. to;

- Reassure the respondents that the individual information will not be shared with anyone in the community and will be confidential.
- The exact number of disabled people at various administrative levels in the country would be important for the Government to plan for facilities and allocate money for the same.

The enumerator was also instructed that he should not **avoid or rush through the question:** It is important that the enumerator ask the question and give time for people to respond.

The enumerator was instructed not to do the following;

- Not to change his expression or sympathize or laugh when the person says that she/he
 has a disability or their family member has a disability. Take that information as a fact
 and make a note of it.
- Not to try to diagnose or cross-question about disability. Do not try to investigate on the
 cause or cure or treatment or rehabilitation regarding the impairment. The person may
 not 'look' disabled, but may have difficulty in seeing, hearing or any other disability. You
 may not be able to 'see' all disabilities. The person's response should be taken as it is.
- Temporary impairments like limitation of movement due to fracture or temporary illness need not be counted as disability.

The enumerator was instructed to note that;

- The disability of a person may be decided with reference to the date of enumeration;
- The informant's perception about the type (s) of disability may be taken as final.

Disability 'In Seeing' - Code 1

- 2.16 A person may be considered as having disability 'In Seeing' if she/he:
 - Cannot see at all; or
 - Has no perception of light even with the help of spectacles; or
 - Has perception of light but has blurred vision even after using spectacles, contact lenses etc. A simple test is whether the person can count the fingers of hand from a distance of 10 feet in good daylight. Such persons can however, move independently with the help of remaining sight; or
 - Can see light but cannot see properly to move about independently; or
 - Has blurred vision but had no occasion to test if her/his eyesight would improve after taking corrective measures.
 - In case it is found that the person has disability 'In Seeing' Code-1 should be given

The enumerator was instructed to note that;

- Persons with no vision in one eye but full vision in the other eye (one eyed persons) should not be considered as disabled in seeing.
- Persons having night blindness alone should not be considered as disabled in seeing.
- Persons having colour blindness alone should not be considered as disabled in seeing.

Disability 'In Hearing' - Code 2

- 2.17 A person may be considered as having disability 'In Hearing' if she/he:
 - · Cannot hear at all; or
 - Has difficulty in hearing day-to-day conversational speech (hard of hearing); or
 - If she/he was using a hearing aid.

The enumerator was instructed to note that:

Persons having problem in only one ear should not be considered as having hearing disability. The condition of both the ears may be taken into consideration for treating a person as disabled 'In Hearing'.

Disability 'In Speech' - Code 3

- 2.18 A person will be considered having disability 'In Speech', if she/he was above the age of 3 years and:
 - Cannot speak at all or she/he was unable to speak normally on account of certain difficulties linked to speech disorder; or
 - Able to speak in single words only and was not able to speak in sentences; or
 - Stammers to such an extent that the speech was not comprehensible. However, persons who stammer but whose speech is comprehensible may not be treated as disabled in speech.

The enumerator was instructed to note that;

It is common that a person who is born with a hearing disability is also unable to speak (Deaf mute). For census purpose this may be treated as a Multiple Disability and appropriate codes may be entered in the boxes against 9(c).

Disability 'In Movement' - Code 4

- 2.19 A person may be considered as having disability 'In Movement' if she/he has a disability of bones, joints or muscles of the limbs leading to substantial restriction of movement. This would cover persons who:
 - Do not have both arms; or
 - Do not have both legs; or
 - Were paralysed and were unable to move; or
 - Were unable to walk but crawl to move from one place to the other; or
 - Were able to move only with the help of caliper/s, wheelchair, tricycle, walking frame, crutches etc.; or
 - Have acute and permanent problems of joints/muscles that have resulted in limited movement; or
 - Have lost all the fingers or toes or a thumb; or
 - Were not able to move or pick up any small thing placed nearby; or
 - Have stiffness or tightness in movement, or have loose, involuntary movements or tremors of the body or have fragile bones; or
 - Have difficulty in balancing and coordinating body movements; or
 - Have loss of sensation in the body due to paralysis or leprosy or any other reason; or
 - Have any deformity of the body part/s like having a hunch back; or
 - Were very short statured (dwarf).

The enumerator was instructed to note that;

Manifestation of disability arising out of 'Cerebral Palsy' may be recorded under this category and code '4' will be put in the box against 9(b).

Mental Retardation - Code 5

2.20 **Mental Retardation** means a condition of arrested or incomplete development of mind of a person which is specially characterized by sub-normality of intelligence. The onset of mental retardation is usually from birth or in some cases before the age of 18 years.

A person may be considered as having the disability of 'Mental Retardation' if she/he:

- Lacks understanding/comprehension as compared to her/his own age group; or
- Was unable to communicate her/his needs when compared to other persons of her/his age group; or
- Has difficulty in doing daily activities like looking after toilet needs, cleaning teeth, bathing, wearing clothes, taking care of personal hygiene and nutrition and general household tasks; or
- Has difficulty in understanding routine instructions; or
- Has extreme difficulty in making decisions, remembering things or solving problems.

The enumerator was instructed to note that;

No test was required to assess Mental Retardation. It should be left to the respondent to report whether the member of the household has mental retardation.

It was important for the enumerator to clarify that all slow learners and persons with delayed development are not necessarily mentally retarded. Students who are slow learners in school should definitely not be considered as Mentally Retarded. Mental Retardation is generally from birth and its onset is well before the age of 18 years.

Mental Illness - Code 6

2.21 A person may be considered as having Mental Illness if she/he has a psychological or behavioural pattern associated with distress or disability that is not a part of normal development. The affected person is generally not able to cope with the problem.

As per medical literature, there are many different types of mental illnesses like :

Anxiety Disorders	phobia, anxiety disorder, social anxiety disorder, panic disorder,
	obsessive compulsive disorder, post traumatic stress disorder etc.
Mood Disorders	intense and sustained sadness, melancholy or despair, manic
	depression
Perception Disorder	Delusions, Hallucinations, and Schizophrenia etc
Personality Disorders	Eccentricity, Paranoia etc.

It was important for the enumerator to note that:

These are medical terms and cannot be explained so easily. The above were given as an illustration of the various types of mental illnesses that may be reported. As far as the enumerator was concerned, it was important that he may record only what the respondent reports. He should not dispute or enter into any kind of discussion or debate on the issue.

In general a person may be considered as having the disability of 'Mental Illness' if she/he:

- Was taking medicines or other treatment for mental illness; or
- Exhibits unnecessary and excessive worry and anxiety, unexplained withdrawal or problems in sleep, loss of appetite and/or depression, thought of dying, unattended personal hygiene; or
- Exhibits repetitive (obsessive-compulsive) behaviour / thoughts; or
- Exhibits sustained changes of mood or mood swings (joy and sadness) leading to having many days or weeks of not being able to function and behave normally; or
- Has unusual experiences such as hearing voices, seeing visions, experience of strange smells or sensations or strange taste; or
- Exhibits unusual behaviours like talking/laughing to self, staring in space, excessive fear and suspicion without reason; or
- Has difficulty in social interactions and adapting at home, at school, at workplace or generally in society.

The enumerator was instructed to note that;

- a. The onset or manifestation or realization of mental illness may not seen from birth unlike mental retardation. Please ascertain whether any person in the household has mental illness.
- b. No test was required to assess Mental Illness. It should be left to the respondent to report whether the member of the household has Mental Illness.

Any Other - Code 7

- 2.22 Ask if the person has a disability that is not covered under any of the categories listed in the question. If the respondent/person reports that she/he or any member of her/his household has a disability other than those listed in the question, he should give write code-7 in the box against 9(b). This category would include disabilities like Autism etc.
 - 2.22.1 **Autism** means a condition of uneven skills development primarily affecting the communication and social abilities of a person, marked by repetitive and ritualistic behaviour. A person suffering from Autism shows difficulty in communicating; interacting with others and having friends; may show unusual and repetitive behaviours; likes to stay aloof, shows inappropriate attachment to objects, has no understanding of fear and real danger, sometimes does not like to be touched or hugged etc. Such persons may otherwise be highly intelligent.

Multiple Disability - Code 8

- 2.23 **Multiple Disabilities** means a combination of two or more disabilities. Persons suffering from any of the two or more disabilities bearing code nos. 1 to 7 listed in the question may be treated as having 'Multiple Disabilities'. The question has been designed to record a combination of maximum three types of disabilities. Please remember that codes in boxes against 9(c) may be written only if you have recorded code- 8 in the box against 9 (b).
- 2.23.1 During canvassing of the schedule enumerator may come across any number of combinations. The enumerator has to record these faithfully. He may come across a situation where the person is disabled in 'Hearing' and 'Speech' as well. The disability in 'Speech' is most commonly seen as the indicator of disability in 'Hearing'. It is generally believed that actual disability in such cases is not speech disability but Hearing disability which prevents acquisition of a spoken language in a normal way and therefore, the person is considered to be suffering from Hearing disability.
- 2.23.2 It was however, clarified that for the purpose of Census of India, 2011, disabilities in Hearing and Speech may treated as separate categories for the reason that people also acquire disability in Hearing and Speech during their life span on account of accidents, illness and/or having attained old age.

2.24 A copy of the Schedule and the instruction brochure on disability used in Census -2001 are given in Annexures –II and III respectively.

2.25 Comparative Statement showing the coverage of Disability in various Censues.

Category	Census-1981	Census-2001	Census-2011
Scope	Only Physically Handicapped persons were enumerated as follows:	One question covering the following categories:	Three questions covering the following categories:
	 The totally Blind The deaf The orthopaedically handicapped 	In Seeing 1 In Speech 2 In Hearing 3 In Movement 4 Mental 5	 In Seeing - 1 In Hearing - 2 In Speech - 3 In Movement - 4 Mental Retardation - 5 Mental Illness - 6 Any other - 7 Multiple Disability - 8@

^{@-} A combination of maximum three types of disabilities was included.

Strengths and weaknesses of the data collection through Census

2.26 Table below summaries the salient advantages and disadvantages of data collection through Census.

Advantages	Disadvantages
Data can be tabulated for small, local	Questions limited to basic socioeconomic
areas.	and demographic characteristics,
	restricting the scope of disability
	questions.
Prevalence rates can be calculated for	Data collection is infrequent – usually
small geographical areas because	every 10 years. The time between data
data are also gathered for the	collection and data dissemination can be
population at risk.	considerable.
Detailed descriptive cross-tabulations	In some censuses, populations in
are not subject to sampling errors.	institutions with disabilities may not be
	included.
If disability questions remain	Subject to high non-response rates and
comparable, they can be useful	under-enumeration because of the
analysis of disability rates across time.	complexity and sensitivity of the question.
Identified set of persons with	It is costly and time-consuming to identify
disabilities is usually large, allowing	a relative small population of persons with
more detailed cross-tabulations and	disabilities by asking questions of the
analyses.	entire population.
Can provide a useful sampling frame	May be too costly to train enumerators in
for research on persons with	the specific guidelines required for
disabilities who are otherwise difficult	disability questions.
to find.	

Data dissemination

2.27 The data collected through census is disseminated through the reports & special tables publish by the Registrar General & Census Commissioner of India (RG&CCI). These can be assessed on the web-site of the RG&CCI www.censusindia.gov.in . The results on disability are available only for census 2001. The census 2011 results on disability are not released yet.

Chapter 3

Features of the disability statistics collected through National Sample Surveys

Sample surveys

3.1 **Sample surveys** are shorter surveys designed to be administered to a subpopulation selected by some other instrument (often a census) that focus on specific issues. They are often put into the field to answer specific questions about a population. As such, they provide the opportunity to ask more detailed questions about disability. More detailed information is useful in itself, of course, but it also helps to reduce the number of false positive and negative responses, thereby offering a more accurate prevalence measure. A sample survey may be an independent survey focusing entirely on disability, or a disability module added to an existing survey. As sample is a subset of the population, selected for study in some prescribed manner. Thus for estimation and projection, rigorous statistical exercise is needed to minimize the sampling error.

NSS Surveys on Disability

- 3.2 The National Sample Survey made its first attempt to collect information on the number of physically handicapped in its 15th round survey (July 1959-June 1960). The enquiry was exploratory in nature and was confined to rural areas only. In its 16th round (July 1960-June 1961) the geographical coverage was extended to urban areas. Thereafter the subject was again taken up for nationwide survey in its 24th round(July 1969-June 1970), 28th round (October 1973-June 1974), These surveys (undertaken during 15th, 16th, 24th, and 28th rounds) were intended mainly to get a count of persons in the country who suffered from certain specified physical handicaps. However, the types of physical handicap covered were not always same. For reasons of economy information on physically handicapped was collected in the early rounds in survey schedules meant for other subjects. Therefore, there was very little scope for collecting information on cause, specific nature and other details of physical handicap.
- 3.3 NSSO undertook a comprehensive survey on this subject for the first time in the NSS 36th round (July- December 1981) as 1981 was the International Year of the disabled persons. Detailed information relating to magnitude of disability, type of disability, cause, age at onset, type of aid/ appliance used and other socio-economic characteristics was collected in this survey. A decade later, at the request of Ministry of Social Justice and Empowerment [MoSJE], NSSO covered this subject again in its 47th round (July-December 1991), with the same basic framework including concepts, definitions and operational procedures as followed in the 36th round. While the earlier surveys were restricted to only the physically handicapped persons, in the survey conducted since NSS 36th round (1981) an extended definition was used to cover all persons with one or more of the three physical disabilities - visual, communication (i.e. hearing and/ or speech) and locomotor. Also, data on developmental milestones and behavioural pattern of all children of age 5-14 years were collected, regardless of whether they were physically handicapped or not. Again, after a gap of eleven years, the survey on the persons with disabilities was carried out in the 58th round during July-December, 2002. This round also maintained the same definitions and procedures for physical disabilities as were adopted in earlier two rounds. This round, however, extended the coverage by including the mental disability. Along with the particulars of physical and mental disabilities, the socioeconomic

characteristics of the disabled persons such as their age, literacy, employment, vocational training etc. were collected. Governing Council (GC) of NSSO through the working groups with National Experts in different medical institutions, eminent professors, academicians and other important users including Ministry of Social Justice and Empowerment, finalised the questionnaire, sampling design, tabulation plan etc. for the survey.

3.4 All the technical work relating to this survey including, among others, development of sampling design, survey methodology and preparation of the report was undertaken by the Survey Design and Research Division (SDRD) of the NSSO. The field work for the survey was handled by the Field Operations Division (FOD). The collected data were processed by the Data Processing Division (DPD). The overall co-ordination between different agencies was done by the Coordination and Publication Division.

Difficulties in collecting information on disability:

3.5 Since the data are collected by the non-medical investigators, it is imperative to define disability in a very careful and guarded way to minimize the bias of the investigators and respondents. To minimise these difficulties and to involve feasible and practical concepts and definitions of disability, the experts from the relevant medical disciplines are consulted prior to the Survey. The decision to include mental disability in the survey is taken on the basis of a pretest of the questions on mental disability, both for the listing and detailed schedules.

Concepts & Definitions

3.6 Some broad definitions of household, disability and its types, etc. that were used for collection of data pertaining to survey on disability and are also used in this report, are presented in this section. The definitions are as followed for the NSS survey in July- December 2002 (58th round).

Household

3.7 A group of persons normally living together and taking food from a common kitchen constituted a household. The members of a household might not be related by blood to one another. Note that residential institutions for disabled were also covered for the survey.

Disability

3.8 A person with restrictions or lack of abilities to perform an activity in the manner or within the range considered normal for a human being was treated as having disability. It excluded illness/injury of recent origin (morbidity) resulting into temporary loss of ability to see, hear, speak or move.

Mental disability

3.9 Persons who had difficulty in understanding routine instructions, who could not carry out their activities like others of similar age or exhibited behaviours like talking to self, laughing / crying, staring, violence, fear and suspicion without reason were considered as mentally disabled for the purpose of the survey. The "activities like others of similar age" included activities of communication (speech), self-care (cleaning of teeth, wearing clothes, taking bath,

taking food, personal hygiene, etc.), home living (doing some household chores) and social skills.

Visual disability

3.10 By visual disability, it was meant, loss or lack of ability to execute tasks requiring adequate visual acuity. For the survey, visually disabled included (a) those who did not have any light perception - both eyes taken together and (b) those who had light perception but could not correctly count fingers of hand (with spectacles/contact lenses if he/she used spectacles/contact lenses) from a distance of 3 meters (or 10 feet) in good day light with both eyes open. Night blindness was not considered as visual disability.

Hearing disability

3.11 This referred to persons' inability to hear properly. Hearing disability was judged taking into consideration the disability of the better ear. In other words, if one ear of a person was normal and the other ear had total hearing loss, then the person was judged as normal in hearing for the purpose of the survey. Hearing disability was judged without taking into consideration the use of hearing aids (i.e., the position for the person when hearing aid was not used). Persons with hearing disability might be having different degrees of disability, such as profound, severe or moderate. A person was treated as having 'profound' hearing disability if he/she could not hear at all or could only hear loud sounds, such as, thunder or understands only gestures. A person was treated as having 'severe' hearing disability if he/she could hear only shouted words or could hear only if the speaker was sitting in the front. A person was treated as having 'moderate' hearing disability if his/her disability was neither profound nor severe. Such a person would usually ask to repeat the words spoken by the speaker or would like to see the face of the speaker while he/she spoke or would feel difficulty in conducting conversations.

Speech disability

3.12 This referred to persons' inability to speak properly. Speech of a person was judged to be disordered if the person's speech was not understood by the listener. Persons with speech disability included those who could not speak, spoke only with limited words or those with loss of voice. It also included those whose speech was not understood due to defects in speech, such as stammering, nasal voice, hoarse voice and discordant voice and articulation defects, etc.

Locomotor disability

3.13 A person with - (a) loss or lack of normal ability to execute distinctive activities associated with the movement of self and objects from place to place and (b) physical deformities, other than those involving the hand or leg or both, regardless of whether the same caused loss or lack of normal movement of body – was considered as disabled with locomotor disability. Thus, persons having locomotor disability included those with (a) loss or absence or inactivity of whole or part of hand or leg or both due to amputation, paralysis, deformity or dysfunction of joints which affected his/her "normal ability to move self or objects" and (b) those with physical deformities in the body (other than limbs), such as, hunch back, deformed spine, etc. Dwarfs and persons with stiff neck of permanent nature who generally did not have difficulty in the normal movement of body and limbs was also treated as disabled.

Economic activity

- 3.14 Any activity resulting in production of goods and services that adds value to national product was considered as economic activity. Such activities included production of all goods and services for market i.e. production for pay or profit and the production of primary commodities for own consumption and own account production of fixed assets, among the non-market activities. The entire spectrum of human activity falls into two categories viz. economic and non-economic activities. The economic activities have two parts market activities and non-market activities. Market activities are those that involve remuneration to those who perform it i.e., activity performed for pay or profit. These are essentially production of goods and services for the market including those of government services etc. Non-market activities are the production for own consumption of primary products including own account processing of primary products and own account production of fixed assets. However the whole spectrum of economic activities as defined in the UN System of National Accounts (SNA) was not covered under 'economic activity' in the 58th round on NSSO survey. The term "economic activity" includes:
 - (i) all the market activities described above i.e. the activities performed for pay or profit, and
 - (ii) of the non-market activities:
 - (a) all the activities relating to agricultural sector which result in production (including gathering of uncultivated crops, forestry, collection of firewood, hunting, fishing etc.) of agricultural produce for own consumption and
 - (b) the activities relating to the own-account production of fixed assets. Own account production of fixed assets includes construction of own houses, roads, wells etc., and of machinery, tools etc. for household enterprise and also construction of any private or community facilities free of charge. A person may be engaged in own account construction either in the capacity of a labourer or a supervisor.

Prevalence of disability

3.15 For the purpose of the survey, a person with restrictions or lack of abilities to perform an activity in the manner or within the range considered normal for a human being was considered disabled. The All-India and State-wise estimates of prevalence of disability are calculated as number of disabled persons per 1,00,000 persons, differentiating by Types of Disability, Age, Rural/Urban and Male/Female/Persons.

Methodology adopted in 58th round of NSS

3.16 A stratified multi-stage sampling was adopted for the conduct of survey of NSS. The first-stage units were census villages (Panchayat wards for Kerala) in the rural sector and the NSSO Urban Frame Survey (UFS) blocks in the urban sector. The ultimate stage units were households in both the sectors. A total number of 8338 and 9076 first-stage units were selected for survey in the Central and State samples respectively. The total sample First Stage Units (FSUs) was allocated to the States and UTs in proportion to provisional population as per Census 2001 subject to the availability of investigators ensuring more or less uniform work-load. State/UT level sample was allocated between two sectors in proportion to provisional population

as per Census 2001 with double weightage to urban sector. Both rural and urban sector samples allotted to a State/UT were allocated to different strata in proportion to population of the stratum.

- 3.17 FSUs were selected in the form of two independent sub-samples in both the sectors. For rural sector, FSUs were selected by probability proportional to size with replacement (PPSWR) where size was the 1991 census population. For urban sector, FSUs were selected by simple random sampling without replacement (SRSWOR). Detail methodology used including stratification is given in the **Annexure-IV**.
- 3.18 The survey covered both mental and physical disabilities. Among the physical disabilities speech, hearing, visual and locomotor disabilities are considered. The other major topics covered are housing conditions, village facilities, slum particulars etc. The survey covered the whole of the Indian Union *except* (i) Leh and Kargil districts of Jammu & Kashmir, (ii) interior villages of Nagaland situated beyond five kilometres of the bus route and (iii) villages in Andaman and Nicobar Islands which remain inaccessible throughout the year. The survey period of survey was divided into two sub-rounds of three months duration each as follows: July-September 2002 and October-December 2002.
- 3.19 A detailed note on the Sample design and estimated procedure adopted in the NSS 58th round is given in the Annexure-IV. The Sample scheduled for enquiry used in the NSS 58th round is given at **Annexure –V**.

Strengths and weaknesses of the data collection by Sample Surveys

3.20 Table below summaries the salient advantages and disadvantages of sample surveys data collection.

Advantages	Disadvantages
Flexibility in the depth and range of topics	Limited sample size for small geographic
covered.	area resulting to higher sampling errors, thus,
	limited ability to analyse prevalence rate for
	local areas.
Special probes can be used to ensure	Persons with disabilities account for less
that persons with disabilities are identified.	than 20 percent of any population, so unless
	the survey is very large, the sample size of
	persons with disabilities
	may be small
If sampling frame and survey infrastructure	Coverage poor for institutionalized persons,
in place, relatively easy to initiate.	the homeless, refugees or nomadic
	populations.
If comparable with census and other	Time-series analysis of ad hoc surveys is
surveys, can be used for detecting	uncertain.

change over time.	
Because of limited coverage and smaller	Detailed surveys require close supervision of
sample, there is greater control over the	fieldwork and special disability training for
conditions of observation and interviewing.	field supervisors and interviewers.
Capacity to locate persons with disabilities	
can be increased with design modifications	
(e.g. co-coordinating probability sample	
selection with the census, using registered	
population lists, stratifying the sampling	
stage, or increasing the sampling fraction).	
Greater opportunity for field work	
supervision, specialized field training,	
question pre-testing.	

Data dissemination

3.21 The data collected through Sample Surveys on disability Statistics is disseminated through the reports publish by the Co-ordination & Publication Division of NSSO. The reports can be accessed on the web-site of the Ministry of Statistics and Programme Implementation www.mospi.gov.in.

Chapter 4

Some measurement issues concerning comparability of estimates from surveys and censuses

- 4.1 At the turn of the new millennium about 21 million people in India were found to have disability as per official estimate obtained from the Population Census 2001. These included persons with visual, hearing speech, locomotor or mental disabilities, who constituted about 2 percent of the population. On the other hand, NSSO survey on Disability (July December 2002) also estimated the disabled population in the country as 20.7 million.
- 4.2 Census and NSS surveys are the major two sources of official statistics. But the two differ substantially especially in respect of overall estimates of persons with various types of disability and their age distribution, mainly due to differences in the concepts and definitions as also the data collection methodologies. According to NSSO (2002) estimates India have more people with locomotor disability, in contrast according to Census 2001 there is more prevalence of visual disability as compared to other forms of disabilities.
- 4.3 A comparative statement of definitions for different types of disabilities, as used in census 2001 and NSS survey 2002, is given in **Chapter-1**. An analysis of variations in definitions of different types of disabilities as given by NSSO, Census and the Persons with Disability (PWD) Act is attempted in the following paragraphs.
- 4.4 The Persons with Disability (PWD) Act, defines disability in terms of extent of impairment of body structure and body function. The context in which the definitions of disability and categories therein are being examined here relates to the classification of person, as disabled or not, by an enumerator who is given a short training in concepts and definitions. Therefore, the definitions under PWD Act need to be converted into definitions, which are simple and tangible from the point of view of the enumerator as well as the respondents.
- 4.5 However, five types of disabilities were identified for Census 2001.
- 4.6 The NSS definition of disabled person i.e. 'A person with restrictions or lack of abilities to perform an activity in the manner or within the range considered normal for a human being' seems to be in order, provided the deviation from normal manner is defined suitable to the above context. It may also be added here that the general definition of disability given above is based on activity limitation in execution of usual task and not the deviation from the accepted standard of biomedical status of the body of a person. This criterion has been used in examining the category-wise definitions and on the appropriateness of a definition.

Mental Disability:

4.7 The definition under PWD Act can serve only as a basis on which practical definition has to be worked out. The definition used under Population Census limits mental disability to as characterized by sub normality of intelligence and thus, covers only 'Mental

Retardation' category of the PWD Act. On the other hand, **NSS definition** covers sub-normality of intelligence (as difficulty in understanding routine instructions) and goes further in an attempt to cover mental disability other than 'Mental retardation' by adding other characterization of the behaviours like talking to self, laughing/crying, staring, violence, fear and suspicion without reason. As NSS definition seems to be more comprehensive/ inclusive, NSS 2002 figure of number of mentally disabled is expected to be more than the Census 2001 figure. However, corresponding figures, NSS estimates: 20.96 lakhs, Census figure: 22.64 lakhs are not in accordance with the expected order. In contrast to other categories of disability these figures obtained from two sources are close to each other.

Visual Disability:

- 4.8 Except including a person with proper vision only in one eye (**Population Census**) the definitions of Census and NSS are similar in practical terms. Classifying person with proper vision only in one eye as disabled, is not in accordance with the PWD Act. **NSS** has used the counting of fingers as practical measure to verify the blurred vision.
- 4.9 As mentioned earlier that in general, categorization of a person as disabled is primarily based on activity limitation in execution of usual task in environment relevant to the person and not the deviation from the accepted standard of biomedical status of the body of a person. Inclusion of person with proper vision only in one eye under 'Visually disabled' is not in accordance with this criterion.
- 4.10 As expected, the Census figure (at 106.35 lakhs visually disabled person) is higher than the NSS estimate (28.26 lakhs). Only question remain the high extent of difference as we do not expect about 78 lakhs persons under 'one eyed' category. Partly it may be that many two eyed persons also suffer from low or lack vision in one of the eye due to some internal injury/defect which is not noticed by others from outside.

Hearing Disability:

4.11 Census and NSS definition differ in following respect

- a) A person with only one ear functioning normally is classified as disabled in **Census** but not under **NSS** survey.
 - b) Under 'Moderate' disability;
 - PWD **Act** does not classify a person as suffering from 'Hearing Impairment' if he/she has one ear functioning normally.
 - NSS includes a person as disabled who would normally ask to repeat the words spoken by the speaker or would like to see the face of the speaker while he/she spoke or would feel difficulty in conversations.
- 4.12 Here again Census definition has given undue weightage to the deviation of body structure from the accepted structure. On the other hand NSS definition of 'Moderate Hearing Disability' may be considered as covering more than what is required or intended under PWD Act.
- 4.13 On the basis of the definitions Census figures (12.62 lakhs) was expected to be higher than the NSS estimates (30.62 lakhs). Besides sampling error, inclusion of moderate category

of hearing disabled, inclusion of persons having hearing disability in combination with other disability (like speech disability) under both disability categories, may be other reasons for NSS figure being higher than Census figure.

Speech disability

- 4.14 The definitions of **Census** and **NSS** are similar so far as a person having speech disability is concerned. Census definition is more simple and qualifies the listener also. **It may be noticed that the PWD Act does not include speech disability under its purview.**
- 4.15 The reason for NSS figure being higher may be that some persons have speech disability in combination with other disability which is more pronounced than speech disability. These persons would be listed under that pronounced disability alone in Census but under NSS results the person would also be additionally listed as having speech disability.

Locomotor Disability

- 4.16 In case of 'Locomotor Disability' the definition given under PWD Act itself is simple. Both, Census and NSS definitions are in accordance with the definition under the Act except NSS definition includes dwarfs and persons with stiff neck of permanent nature who generally did not have difficulty in the normal movement of body and limbs, as having locomotor disability.
- 4.17 Besides sampling errors, inclusion of dwarfs and persons with stiff neck, and inclusion of persons having multiple disabilities under each category may be responsible for the large variation or at least part of the variation.

Leprosy cured person

4.18 Census and NSS definitions do not consider the loss of sensation or deformities in leprosy cured person for the purpose of disability unless it manifests in the type of disabilities defined under Census and NSS. Activity limitation has been the primary determinants in laying down the definition of disability. A close look at different definitions would show that deviation from the accepted standard of the body structure was judged based on this criterion for including or excluding a person under a disability category. After examining the three categories of 'Leprosy cured person' as given in the PWD Act, it is felt that the third category

Recommendations of the Technical Advisory Committee on Disability Statistics

- 4.19 The Ministry of Statistics & Programme Implementation (MOS&PI) is the apex body in developing standards and definitions for collecting the statistical data on various subjects. It was observed that there were variations in estimates of disability as obtained from NSSO 2002 Survey and Census 2001. The MOS&PI constituted a Technical Advisory Committee (TAC) on Disability statistics to review the conceptual framework and definitions for the measurement of disability and to examine the reasons of variations in the estimates of disability as obtained from NSSO 2002 survey and Census 2001.
- 4.20 The Committee found that the variations in the estimates of disability as obtained from NSSO 2002 and Census 2001 are mainly due to different definitions used by these two agencies and hence leading to different coverage of the population. It is, therefore, become a prime objective of the Committee to streamline the various definitions used for any survey and

Census of India. The Members were of the opinion that there should be only one definition for each category of the disability and whenever any survey is to be attempted by any department/agency on disability, these uniform definitions should be used so that the estimates remained comparative. Therefore, to finalise the definitions for various disabilities the Technical Advisory Committee consulted specialists from various hospitals. Central Bureau of Health Intelligence, Directorate General of Health Services, Nirman Bhawan, New Delhi was also associated with the finalization of the definitions. The report also includes the input from the institutes under the Ministry of Social Justice and Empowerment, such as, Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai, National Trust for the Welfare of Persons with Autism Cerebral Palsy Mental Retardation and Multiple Disabilities, New Delhi and National Institute for the Mentally Handicapped, Secunderabad.

Summary Findings of the TAC on Disability Statistics

- 4.21 The Census being done on a very large scale, it may continue to collect general information about the disabled persons but the definitions may be used as recommended by the Committee. On the other hand, the NSSO may continue to collect detailed information about the disabled persons by deep probing.
- 4.22 As it is very sensitive to ask any person about their disability, a set of uniform core questions be asked before the probing questions. General instructions for guidance of the investigators/enumerators are given in para-6 of the report. The definitions for various disabilities category-wise as decided by the TAC are included in its report which is given at **Annexure-VII.**

Recommendations of the Technical Advisory Committee and Census 2011

- 4.23 Keeping the workload of enumerator in view, the census 2011 has tried to align the definitions of various kinds of disabilities with the recommendations of the recommendations of technical advisory committee. Some features are given as under:
 - (i) Census uses eight categories of disability in enumeration: 'in seeing', 'in hearing', 'in speech', 'in movement', 'mental retardation', 'mental illness', 'any other', 'multiple disability'. In multiple disability it further records maximum three disabilities.
 - (ii) Instruction manual for 'House listing and Housing Census' 2011 provided detailed information on definitions of various types of disabilities and instructions to guide its enumerators. A separate leaflet on disability, which gives definition of 'disability' and 'dos and don'ts' was also provided.
 - (iii) Census 2011 gave detailed instructions on sensitization of enumerators while training.

- (iv) The Census 2011 broadens the scope of the category of 'mental disability'. It has used two separate categories of 'mental retardation' & 'mental illness'.
- (v) It doesn't differentiate between blindness with low vision while enumerating. There is a uniform category of disability "in seeing".
- (vi) It doesn't enumerate leprosy cured person in a separate category.

Chapter 5

International Scenario

The Convention of Rights of Persons with Disabilities (UNCRPWD: United Nation, 2006 5.1 w.e.f. 8 May 2008) and the Biwako Millenium Framework for Action and Biwako Plus Five (ESCAP 2003) reflect a shift from a medical to social model of disability. In the medical model, individuals with certain physical, intellectual, psychological and mental conditions (impairment) are regarded as pathologic or abnormal; it is simply the abnormality conditions themselves that are the cause of all restrictions of activities. According to the this model, disability lies in the individuals, as it is equated with those restrictions of activity. Faced with the line of thinking, individuals would feel pressured to work on 'their' restrictions, bearing the burden of adjusting to their environment through cures, treatment or rehabilitation. In contrast, the social model shifts the focus to the society; undue restrictions on behaviour of persons with impairment are seen to be imposed by: a) dominant social, political, and economics ideologies; b) cultural and religious perceptions regarding persons with disabilities; c) paternalism in social welfare systems; d) discriminations by society; e) the inaccessibility of the environment and information; and f) the lack of appropriate institutional and social arrangements. Thus in this model, disability does not lie in individuals, but in the interactions between individuals and society. In the social model, persons with disabilities are right holders, and are entitled to advocate for the removal of institutional, physical, informational and attitudinal barriers in society. Thus it is a concept based on the consequences of diseases/ infirmity on functional capacity and/ or social participation. It locates the definition of disability at the most basic level of activity/participation in core domains - defined as the ability or inability to carry out basic actions at the level of whole person (i.e. walking, climbing stairs, lifting packages, seeing a friend across the room etc.).

5.2 India is signatory to UNCRPD convention and ratified it in 2007. Revision in Census 2011 can be seen in alignment to demand of UNCRPD convention, which demands comprehensive measures of data collection of various disabilities.

Washington Group on Disability Statistics

5.3 Washington Group on Disability Statistics was organized in the year 2001 with the main objective of promoting and coordinating international cooperation in the area of health statistics by focusing on disability measures suitable for censuses and national surveys which will provide basic necessary information on disability throughout the world. The Washington Group aims to guide the development of a small set or sets of general disability measures, suitable for use in censuses; sample based national surveys, or other statistical formats, for the primary purpose of informing policy on equalization of opportunities. The World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF) has been accepted as the basic framework for the development of the sets. Representatives of national statistical officer, including India, international organizations, and non-government organizations have participated in the last 7 meetings.

International Classification of Functioning, Disability, and Health (ICF)

Introduction

- The absence of a common language of disability, including a common understanding of the multidimensional concept of disability, is the principal cause of the lack of agreement on disability data around the globe. The primary aim of the ICF and WHO's motivation to engage in a decade-long, international collaborative venture to revise the 1980 version of the **International Classification of Impairments, Disabilities and Handicaps** (ICIDH) was to realize the dream of valid, reliable, and internationally comparable disability statistics. By using the common language of the ICF, every country will be able to benefit from the integration of disability statistics into a common worldwide data collection.
- 5.6 International Classification of Functioning, Disability and Health (ICF), is a classification of health and health related domains that describe body functions and structures, activities and participation. The overall objective of the ICF classification is to provide a unified and standard language and framework for the description of health and health related states.

ICF and its purposes in disability and health statistics

5.7 The World Health Organization's (WHO) International Classification of Functioning, Disability, and Health (ICF) is both a classification system and a model of the complete experience of disability. The ICF is a member of WHO's family of health classifications, the other prominent member of which is the International Statistical Classification of Diseases and Related Health Conditions (ICD-10). As a classification system, ICF provides a common language, which guarantees the comparability of disability data between sectors within a country, and between countries. As a model of disability, the ICF offers a conceptual framework for structuring disability data.

Concept of disability under ICF

- At the core of ICF's concept of disability are the facts that disability is multidimensional and the product of an interaction between an individual's certain conditions and his or her physical, social, and attitudinal barriers. The bio-psychosocial model embedded in the ICF broadens the perspective of disability and allows medical, individual, social, and environmental influences on functioning and disability to be examined. Structurally, the ICF is based on three levels of functioning (body functions and structures, activities, and participation) with parallel levels of disability (impairments, activity limitations, and participation restrictions). Human functioning is understood as a continuum of health states and every human being exhibits one or another degree of functioning in each domain, at the body, person and society levels.
- 5.9 In the ICF language, contextual factors (environmental factors and personal factors) also constitute disability. Environmental factors include availability of assistive devices, family and community support, supportive services and policies and attitudes of different people. Personal factors include health conditions (diseases, disorders and injuries). ICF conceptualizes disability, not solely as a problem that resides in the individual, but as a health experience that occurs in a context.

ICF: International language of disability

5.10 The ICF is a set of classifications of the dimensions of disability phenomena and environmental factors. With their hierarchical arrangement, operational definitions of each category, and coding structure, these classifications together form an international common language of disability. Whatever purpose data users seek to achieve with a survey or other tool, that purpose is greatly enhanced by its international comparability of data.

ICF terminology and definitions of disability

5.11 Definitions of some of the key terms used in ICF are given in <u>Annexure VI.</u> This is given only for information of the users of the manual. For detail study please refer to the WHO/ESCAP Training Manual on Disability Statistics.

Implementation of ICF

5.12 In Asia and the Pacific, the ICF has been implemented in Australia and New Zealand. Indonesia and Thailand have also begun to use its concepts in some of their disability data collections. The experience of integrating the ICF concepts into disability data collections has been that disability phenomenon has been described with greater clarity and precision. India has not yet begun to use ICF due to technical reasons.

Questions: HOUSEHOLD SCHEDULE (for Population Enumeration : Census of India 2001)

Part I: Location Particulars:

Part II: Individual Particulars:

GENERAL AND SOCIO-CULTURAL CHARACTERISTICS

Q. 1: Name of the person Q. 2: Relationship to head Q. 3: Sex (Male/ Female) Codes Q. 4: Age last birthday (in completed years) Q. 5: Current marital status Codes Q. 6: Age at marriage (in completed years) Q. 7: Religion (write name of the religion in full) Codes Q. 8: If Scheduled Caste, write name of the Scheduled Caste from the list supplied Q. 9: If Scheduled Tribe, write name of the Scheduled Tribe from the list supplied Q. 10: Mother tongue Q. 11: Other languages known (enter upto two languages in order of proficiency) Q. 12: Literacy status (Literate/ Illiterate) Codes Q. 13: Highest educational level attained (for diploma or degree holder, also write the subject of specialisation) Q. 14: If attending educational institution **Codes** Q. 15: If the person is physically/mentally disabled, give appropriate code Codes number **CHARACTERISTICS OF WORKERS AND NON-WORKERS:** Q. 16: Codes

Q. 16: Did the person work any time last year?

(includes even part time help or unpaid work on farm, family enterprise or in any other economic activity)

Worker: If worked for less than 6 months, Non-Worker: If not worked at all) Q. 17: Economic activity of Main or Marginal Worker: Q. 17(i): Category of the economic activity of the Main or Marginal Worker Codes For Workers in Household Industry and for other Workers only: Q. 17(ii): Occupation of the person (describe the actual work of the person) Q. 17 (iii): Describe in detail the nature of industry, trade or service where the person works/ worked or of self employment Q. 17 (iv): Class of Worker Codes Q. 18: If Marginal Worker or Non-Worker, under Q. 16, record non-economic **Codes** activity Q. 19: If Marginal Worker or Non-Worker, is the person seeking/ available for Codes work? Q. 20: Travel to place of work (for Other Workers only): Q. 20 (i): Distance from residence to place of work in Kilometres Q. 20 (ii): Mode of travel to place of work Codes **MIGRATION CHARACTERISTICS:** Q. 21: Birth Place: Is the person born in this village/ town? (If 'Yes', put dash (-) against Q. 21(i) and Q. 21 (ii) or, If 'No', enter particulars:) Q. 21 (i) State/Country (If birth place within India, write the present name of the state or if birth place outside India, write the present name of the country) Q. 21 (ii) District [If birth place within India, write the present name of the district or if birth place outside India, put dash (-)] Q. 22: Place of Last Residence: Has the person come to this village/town from (If 'No', put dash (-) against Qs. 22(i) to 22 (v) or if 'Yes', give following particulars:)

(Categories: Main worker: If worked for 6 months or more, Marginal

Q. 22 (i)

State/Country:

(If place of last residence within India, write the present name of the state or if place of last residence outside India, write the present name of the country)

Q. 22 (ii)

District:

[If place of last residence within India, write the present name of the district or if place of last residence outside India, put dash (-)]

Q. 22 (iii)

At the time of migration, was the place of last residence: Rural/ Urban

Q. 22 (iv) <u>Codes</u>

Reason for migration of this person

Q. 22 (v)

Duration of stay in this village or town since migration (in completed years)

FERTILITY PARTICULARS:

Q. 23 Fertility

For Ever Married Women only (Currently Married, Widowed, Divorced or Separated):

Q. 23 (i)

Number of children surviving at present (also include daughters and sons presently not staying in this household) [Separately for Daughter(s) and Son(s)]

Q. 23 (ii)

Total number of children ever born alive (include both living and dead daughters and sons)

[Separately for Daughter(s) and Son(s)]

For currently married women only:

Q. 23 (iii)

Number of children born alive during last one year (after 9th February 2000)

[Separately for Daughter(s) and Son(s)]

PART III: For Household engaged in cultivation/planation

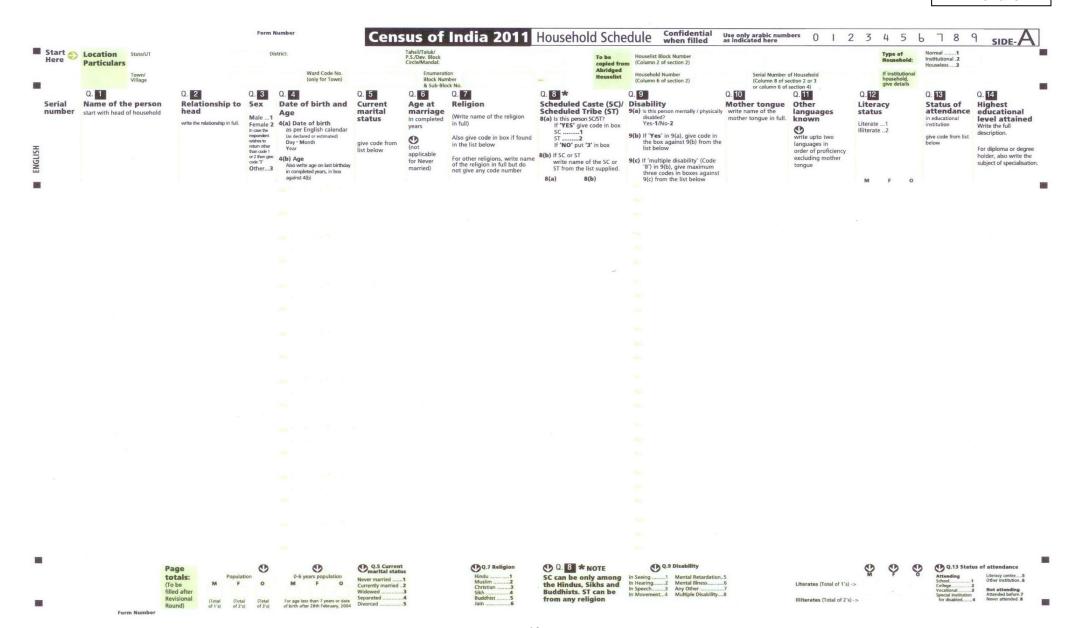
- (i) Total net area of land under cultivation/ plantation (in Hectares)
- (ii) Net area of irrigated land (in Hectares)
- (iii) Tenure status of land under cultivation/ plantation

Codes

Source: Office of the Registrar General, India, 2A, 110011

e-mail: rgoffice@ Mansingh Road, New Delhi censusindia.net

Annexure -II



21x29.7 cm Front



What is disability?

"Disability is a physical or mental impairment that significantly restricts one or more major life activities."

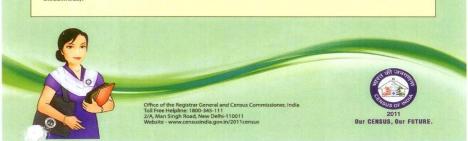
As an enumerator, it is you who would be going to every house in the country. You will be witness to the fact that differently abled people exist and report this data to the Government. It is this data that will be used for the next ten years for policy making, resource allocation and for providing facilities.

It is in your hands to make this 'invisible population' visible.

Because you can make a difference!

What the enumerator should not do:

- Do not change your expression or sympathise or laugh when the person says that he/she has a disability or their
 family member has a disability. Listen carefully and take the information as a fact and make a note of it.
- Do not try to diagnose or ask how the disability was acquired or cross question about the disability. The person
 may not 'look' disabled but may have difficulty in seeing, hearing or any other disability. The person's response
 should be taken as it is.
- Do not ask for any certificate or documents.
- Do not conduct any assessment to show or prove the disability.
- Do not start counseling.
- Do not make any promises.
- Do not avoid or rush through the question. It is important that you not only ask the question, but also give time for people to share this information.
- Do not be in a hurry to write the code of disability. Ask if the person has more than one disability (multiple disabilities).



21x29.7 cm Back

How to ask the disability question:

"The Government wants to know how many people are disabled in the country. The information will be used to ensure that there are required facilities, education, employment, transport, assistive devices, health services etc., which will help them become more independent, participative and contribute equally to the society. So, please share if any of your family members has difficulty in seeing, hearing, remembering, walking, using hands, learning or a mental health condition."

This is one of the ways the question can be asked.

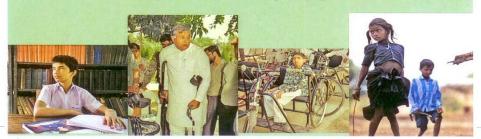
How to gain confidence of the respondent:

- Build a rapport with the respondent(s). Your friendly and respectful mannerism and language will help you gain their confidence and respect.
- Share the reason for asking a question on disability.
- Make it simple: Use simple and non derogatory language. Explain disability in terms of difficulty in doing any
 functions of daily living (taking care of oneself, gaining education, taking up a job) or participating in some/all
 spheres of life.
- Assure confidentiality: Re-assure the respondents that individual information will not be shared with anyone in the community.

About whom should you ask the question:

- The question should be asked about everyone in the family. Do not assume that just because someone looks alright or normal she/he will not have a disability.
- Many disabilities are not visible. For example, a person with hearing impairment, low vision or mental impairment.
- Do not leave out elderly/old people, infants, girls/women who may be disabled.

Recognise and record all differently abled people.



Note on sample design and estimation procedure of NSS 58th round

1. Introduction

1.1 The National Sample Survey Organisation (NSSO), engaged in collection of socio-economic data employing scientific sampling methods, started its fifty-eighth round from 1st July 2002. The survey continued till December 2002. The primary objective of this survey was to gather information on social indicators like disability and housing condition. Besides, annual round of data on household consumer expenditure and employment-unemployment were also collected.

2. Subject coverage

2.1 The survey covered both mental and physical disabilities. Among the physical disabilities speech, hearing, visual and locomotor disabilities were considered. The other major topics covered were housing conditions, village facilities, slum particulars etc.

In addition, the annual consumer expenditure enquiry covering some key characteristics of employment-unemployment were also carried out on a sample of four households in each sample FSU.

- 2.2 **Geographical coverage**: The survey covered the whole of the Indian Union *except* (i) Leh and Kargil districts of Jammu & Kashmir, (ii) interior villages of Nagaland situated beyond five kilometres of the bus route and (iii) villages in Andaman and Nicobar Islands which remain inaccessible throughout the year.
- 2.3 **Period of survey and work programme**: The survey period of this round was divided into two sub-rounds of three months duration each as follows:

Sub-round 1: July-September 2002

Sub-round 2: October-December 2002

As far as possible, equal number of sample FSUs was allotted for survey in each of the two subrounds to ensure uniform spread of sample FSUs over the entire round. Attempt was made to cover each such FSU during the sub-round to which was allotted. Because of the arduous field conditions, this sub-round restriction was relaxed in Andaman and Nicobar Islands, Lakshadweep, rural areas of Arunachal Pradesh and Nagaland.

2.4 **Schedules of enquiry:** The following are lists the schedules of enquiry for this round:

schedule 0.0: list of households

schedule 3.1: village facilities

schedule 0.21: particulars of slum

schedule 26: survey of disabled persons

schedule 1.2: housing condition

schedule 1.0: household consumer expenditure

2.5 **Participation of States**: In this round all the States and Union Territories except Andaman & Nicobar Islands, Dadra & Nagar Haveli and Lakshadweep participated at least on an equal matching basis. The following gives the prevalent matching pattern of the participating States/UTs:

Nagaland (U): triple

J & K , Manipur, Delhi: double

Goa, Maharashtra (U): one and half

remaining States and UTs: equal

3. Sample Design

- 3.1 **Outline of Sample Design:** A stratified multi-stage design was adopted for the conduct of survey of NSS 58th round. The first-stage units were census villages (panchayat wards for Kerala) in the rural sector and the NSSO Urban Frame Survey (UFS) blocks in the urban sector. The ultimate stage units were households in both the sectors.
- 3.2 Sampling Frame for First-Stage Units: For the rural sector, the list of Census 1991 villages (panchayat wards for Kerala) and Census 1981 villages for J & K constituted the sampling frame. For the urban sector, the list of latest available Urban Frame Survey (UFS) blocks was considered as the sampling frame.

3.3 Stratification

3.3.1 **Rural sector:** Two **special strata** were formed as given below at the State/ UT level on the basis of Population Census 1991 viz.

Stratum 1: all FSUs with population between 0 to 50, and Stratum 2: FSUs with population more than 15,000

The special stratum 1 was formed if at least 50 such FSU's were found in a State/UT. Similarly, special stratum 2 was formed if at least 4 such FSUs were found in a State/UT. Otherwise, such FSUs were merged with the general strata.

From the remaining FSUs (not covered under stratum 1 &2) **general strata** (hereafter, stratum will refer to general stratum unless otherwise mentioned) was formed and numbered 3, 4, 5 etc. (even if no special strata have been formed). Each district of a State/UT was normally treated as a separate

stratum. However, if the provisional population of the district was greater than or equal to 2.5 million *as per Census 2001*, the district was divided into two or more strata with more or less equal population as per population census 1991 by grouping contiguous tehsils. However, in Gujarat, some districts were not wholly included in an NSS region. In such cases, the part of the district falling in an NSS region constituted a separate stratum.

3.3.2 **Urban sector:** In the urban sector, stratum was formed within each NSS region on the basis of size class of towns as per *Census 1991 town population except for towns specified in Table 4.* The stratum number and their composition (within each region) are given below:

stratum 1: all towns with population (P) < 0.1 million

stratum 2: all towns with $0.1 \le P < 0.5$ million

stratum 3: all towns with $0.5 \le P < 1$ million

stratum 4,5,6, ... each town with P≥ 1 million

The stratum numbers was retained as above even if, in some regions, some of the stratum is not formed.

3.4 **Sub-stratification:** There was no sub-stratification in the rural sector. However, to cover more number of households living in slums, in urban sector each stratum was divided into 2 sub-strata as follows:

sub-stratum 1: all UFS blocks having area type 'slum area'

sub-stratum 2: remaining UFS blocks

If there was one UFS block with area type 'slum area' within a stratum, sub-stratum 1 was not formed; it was merged with sub-stratum 2.

- 3.5 Total sample size (FSUs): A total number of 8338 and 9076 first-stage units were selected for survey in the Central and State samples respectively. The sample size by State and Sector is given in the Annexure
- 3.6 **Allocation of total sample to States and UTs:** The total sample FSUs was allocated to the States and UTs in proportion to provisional population as per Census 2001 subject to the availability of investigators ensuring more or less uniform work-load.
- 3.7 **Allocation of State/ UT level sample to Rural and Urban sectors:** State/UT level sample was allocated between two sectors in proportion to provisional population *as per Census 2001* with double weightage to urban sector.
- 3.8 Allocation of Rural /Urban sector level sample size to strata / sub-strata: Both rural and urban sector samples allotted to a State/UT were allocated to different strata in proportion to population of the stratum. All the stratum-level allocations were adjusted to multiple of 2. Stratum-level sample size in

the urban sector was further allocated to 2 sub-strata in proportion to the number of UFS blocks in them with double weightage to sub-stratum 1 subject to a minimum sample size of 2 or 4 to sub-stratum 1 according as stratum-level allocation is 4 or greater than 4. Sub-stratum level allocations in the urban sector were made even.

3.9 **Selection of FSUs:** FSUs were selected in the form of two independent sub-samples in both the sectors. For special stratum 2 and all the general strata of rural sector, FSUs were selected by probability proportional to size with replacement (PPSWR) where size was the 1991 census population. For urban sector and special stratum 1 of rural sector, FSUs were selected by simple random sampling without replacement (SRSWOR).

4. Selection of hamlet-groups/sub-blocks / households

4.1 Formation of hamlet-group/sub-block: Large villages/ blocks having approximate *present population* 1200 or more were divided into a suitable number of hamlet-groups/sub-blocks as given below:

approximate present	no. of hamlet-groups/						
population	sub-blocks formed						
less than 1200	1 (no hamlet-group/sub-block formation)						
1200 to 1799	3						
1800 to 2399	4						
2400 to 2999	5						
3000 to 3599	6						
and so on							

For rural areas of Himachal Pradesh, Sikkim and Poonch, Rajouri, Udhampur and Doda districts of Jammu and Kashmir and Idukki district of Kerala where habitation pattern causes difficulty in listing due to topography of the area, hg formation criterion was relaxed for which number of hamlet groups formed as per population criterion is given below:

approximate present	no. of hamlet-groups/						
population	sub-blocks formed						
less than 600	1 (no hamlet-group/sub-block formation)						
600 to 899	3						
900 to 1199	4						

1200 to 1499 5

....and so on

Hamlet-groups / sub-blocks were formed by more or less equalising population. For large urban blocks, the sub-block (sb) having slum dwellers, if any, was selected with probability 1 and was termed as segment 1. However, if there were more than one sb having slum dwellers, the sb having maximum number of slum dwellers was selected as segment 1. After selection of sb for segment 1, one more sb was selected by simple random sampling (SRS) from the remaining sb's of the block and was termed as segment 2. For large blocks (having no slum areas) two sub-blocks were selected by simple random sampling without replacement (SRSWOR) and were combined to form segment 2. For urban blocks without sub-block formation, segment number was 1 or 2 depending on whether the block was having a slum or not. For large villages two hamlet-groups were selected by SRSWOR and were combined to form segment 2. For villages without hamlet-group formation, segment number was also 2. The segments were considered separately for listing and selection of the ultimate-stage units.

4.2 Formation of Second Stage Strata (SSS) and selection of households for schedules 1.2 and 1.0: In each selected village/block/segment, three and two second stage strata (SSS) were formed for schedule 1.2 and schedule 1.0 respectively on the basis of structure type in rural areas and household MPCE in urban areas. The number of households selected for each FSU is given below:

Schedule 1.2

		without segment formation	with segment formation (for each segment)
rural			
SSS 1:	households having pucca dwelling structure	4	-
SSS 2:	households having semi-pucca dwelling structure	4	-
SSS 3:	other households	4	-
urban			
SSS 1:	households having MPCE of top 10% of urban population	4	2
SSS 2:	households having MPCE of middle 60% of urban population	4	2
		4	2
SSS 3:	households having MPCE of bottom 30% of urban population	4	2

The sample households were selected by SRSWOR from each SSS.

Schedule 1.0

		without segment formation	with segment formation (for each segment)
Rural			
SSS 1:	households having pucca dwelling structure	2	-
SSS 2:	other households	2	-
urban			
SSS 1:	households having MPCE of top 10% of urban population	2	1
SSS 2:	other households	2	1

The sample households were selected by SRSWOR from each SSS.

4.3 Formation of Second Stage Strata (SSS) and selection of households for schedule 26: In each selected village/block/segment, three second stage strata (SSS) were formed on the basis of disability type. The number of households selected is given below:

Schedule 26

		Without segment formation	with segment formation (for each segment)
SSS 1:	households having at least one person with mental disability	4	2
SSS 2:	households having at least one person with speech/hearing/ visual disability out of remaining households	4	2
SSS 3:	households having at least one person with locomotor disability out of remaining households	4	2

The sample households were selected by SRSWOR from each SSS.

For a household having a person with more than one disability (i.e. multiple disability), SSS was assigned by priority criterion e.g. a household having a person with mental disability as well as locomotor disability was classified under SSS 1 and a household having one person with speech disability and another person with locomotor disability was classified under SSS 2.

4. Estimation Procedure

4.1 Notations:

```
s = subscript for s-th stratum

t = subscript for t-th sub-stratum of an urban stratum (t = 1, 2)

m = subscript for sub-sample (m = 1, 2)

i = subscript for i-th FSU [village (panchayat ward) / block]

u = subscript for a segment (u = 1, 2)
```

j = subscript for j-th second stage stratum of an FSU

k = subscript for k-th sample household under a particular second stage stratum within an FSU D = total number of hg's / sb's formed in the sample village (panchayat ward) / block

D* = 1 if D = 1

= D / 2 for rural FSUs with D > 1

= (D-1) for urban FSUs with D > 1 and with segment 1

= D / 2 for urban FSUs with D > 1 and without segment 1

N = total number of FSUs in an urban stratum / sub-stratum or rural stratum 1

Z = total size of a general stratum or special stratum 2 of rural sector (= sum of sizes for all the FSUs of a stratum)

z = size of sample village used for selection.

n = number of sample village / block surveyed including zero cases but excluding casualty for a particular sub-sample and stratum / sub-stratum.

H = total number of households listed in a second-stage stratum of a segment of a sample FSU

h = number of households surveyed in a second-stage stratum of a segment of a sample FSU<math>x, y = observed value of characteristics x, y under estimation

 \square = estimate of population total X, Y for the characteristics x, y

Under the above symbols,

 y_{sminjk} = observed value of the characteristic y for the k-th household in the j-th second stage stratum of the u-th segment (u = 1, 2) of the i-th FSU belonging to the m-th sub-sample for the s-th rural stratum;

 $y_{stmiujk}$ = observed value of the characteristic y for the k-th household in the j-th second stage stratum of the u-th segment (u = 1, 2) of the i-th FSU belonging to the m-th sub-sample for the t-th sub-stratum of s-th urban stratum

However, for ease of understanding, a few symbols have been suppressed in following paragraphs where they are obvious.

- **4.2** Formulae for estimation of aggregates for a particular sub-sample and stratum / sub-stratum in Rural / Urban sector:
- A) Schedule 0.0 / 3.1 / 0.21:

Rural:

- (a) Estimation formula for stratum 1 (i.e. special stratum at State/UT level):
- i) For estimating the number of households possessing a characteristic:

$$\hat{Y} = \frac{N}{n} \sum_{i=1}^{n} \left[D_i^{i} \times y_{i2} \right]$$

ii) For estimating the number of villages possessing a characteristic:

$$\hat{Y} = \frac{N}{n} \sum_{i=1}^{n} y_i$$

where \Box is taken as 1 for sample villages possessing the characteristic and 0 otherwise.

- (b) Estimation formula for other strata:
 - i) For estimating the number of households possessing a characteristic:

$$\hat{Y} = \frac{Z}{n} \sum_{i=1}^{n} \frac{1}{z_i} \left[D_i^i \times y_{i2} \right]$$

ii) For estimating the number of villages possessing a characteristic:

$$\hat{Y} = \frac{Z}{n} \sum_{i=1}^{n} \frac{1}{z_i} y_i$$

Urban:

(a) Estimation formula for a sub-stratum of an urban stratum:

$$\hat{Y} = \frac{N}{n} \sum_{i=1}^{n} \left[y_{il} + D_i^{i} \times y_{i2} \right] \quad ,$$

where $^{\boxed{y_2}}$ and $^{\boxed{y_2}}$ are the totals of observed values for the characteristic y belonging to segments 1 and 2 respectively, of the i-th FSU in the tth sub-stratum and sth stratum .

(b) For the sth stratum:

$$\hat{Y}_s = \sum_{t=1}^{2} \hat{Y}_{st}$$
, where denotes the estimate of Y for the t-th sub-stratum of

the s-th stratum.

B) Schedule 1.0:

Rural:

- (a) Estimation formula for stratum 1:
- (i) For households selected in j-th second stage stratum:

$$\hat{Y}_{j} = \frac{N}{n_{j}} \sum_{i=1}^{n_{j}} \left[D_{i}^{2} \times \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2 \ jk} \right] , (\mathbf{j} = \mathbf{1}, \mathbf{2})$$

(ii) For all selected households:

$$\hat{Y} = \sum_{i=1}^{2} \hat{Y}_{i}$$

(b) Estimation formula for general strata:

(i) For households selected in j-th second stage stratum:

$$\hat{Y}_{j} = \frac{Z}{n_{j}} \sum_{i=1}^{n_{j}} \frac{1}{z_{i}} \left[D_{i}^{b} \times \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2 \ jk} \right] , (\mathbf{j} = \mathbf{1}, \mathbf{2})$$

(ii) For all selected households:

$$\hat{Y} = \sum_{j=1}^{2} \hat{Y}_{j}$$

Urban:

- (a) Estimation formula for a sub-stratum of urban stratum
 - (i) For households selected in j-th second stage stratum:

$$\hat{Y}_{j} = \frac{N}{n_{j}} \sum_{i=1}^{n_{j}} \left[\frac{H_{iIj}}{h_{iIj}} \sum_{k=1}^{h_{iIj}} y_{iIjk} + D_{i}^{i} \times \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2jk} \right] , (j = 1, 2)$$

(ii) For all selected households:

$$\hat{Y} = \sum_{j=1}^{2} \hat{Y}_{j}$$

(b) For the s^{th} stratum:

$$\hat{Y}_s = \sum_{t=1}^{2} \hat{Y}_{st}$$

C) Schedule 26 / 1.2:

Rural:

- (a) Estimation formula for stratum 1:
 - (i) For households selected in j-th second stage stratum:

$$\hat{Y}_{j} = \frac{N}{n_{j}} \sum_{i=1}^{n_{j}} \left[D_{i}^{i} \times \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2 \ jk} \right] , (j = 1, 2 \text{ or } 3)$$

(ii) For all selected households:

$$\hat{Y} = \sum_{i=1}^{3} \hat{Y}_{j}$$

- (b) Estimation formulae for general strata:
- (i) For households selected in j-th second stage stratum:

$$\hat{Y}_{j} = \frac{Z}{n_{j}} \sum_{i=1}^{n_{j}} \frac{1}{z_{i}} \left[D_{i}^{t} \times \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2 \ jk} \right] , (\mathbf{j} = \mathbf{1}, \mathbf{2} \text{ or } \mathbf{3})$$

(ii) For all selected households:

$$\hat{Y} = \sum_{j=1}^{3} \hat{Y}_{j}$$

Urban:

- (a) Estimation formula for a sub-stratum of urban stratum
 - (i) For households selected in j-th second stage stratum:

$$\hat{Y}_{j} = \frac{N}{n_{j}} \sum_{i=1}^{n_{j}} \left[\frac{H_{iIj}}{h_{iIj}} \sum_{k=1}^{h_{iIj}} y_{iIjk} + D_{i}^{\lambda} \times \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2jk} \right] , (j = 1, 2 \text{ or } 3)$$

(ii) For all selected households:

$$\hat{Y} = \sum_{i=1}^{3} \hat{Y}_{j}$$

(b) For the sth stratum:

$$\hat{Y}_s = \sum_{t=1}^2 \hat{Y}_{st}$$

4.3 Overall estimate for aggregates:

Overall estimate for aggregates for a stratum (\square) / sub-stratum (\square) based on two subsamples is obtained as:

- (i) $\hat{Y}_s = \frac{1}{2} \sum_{m=1}^{2} \hat{Y}_{sm}$ for rural stratum,
- (ii) $\hat{Y}_{st} = \frac{1}{2} \sum_{m=1}^{2} \hat{Y}_{stm}$ for urban sub-stratum and
- (iii) $\hat{Y}_s = \sum_{t=1}^2 \hat{Y}_{st}$ for urban stratum

4.4 Overall estimate of aggregates at State/UT/all-India level:

The overall estimate at the State/UT/ all-India level is obtained by summing the stratum estimates over all strata belonging to the State/UT/ all-India.

4.5 Estimates of ratios:

Let \Box and \Box be the overall estimate of the aggregates Y and X for two characteristics y and x respectively at the State/UT/all-India level.

Then the combined ratio estimate \widehat{R} of the ratio \widehat{R} will be obtained as

$$\hat{R} = \frac{Y}{\hat{X}}$$

4.6 Estimates of error:

The estimated variances of the above estimates will be as follows:

A) For aggregate ::

$$\widehat{Var(\hat{Y})} = \sum_{s} \widehat{Var(\hat{Y}s)} = \sum_{s} \sum_{j} \widehat{Var(\hat{Y}sj)}$$

where $\widehat{Var(Y_{sj})}$ are as given below.

a) For strata with PPSWR selection at first stage (for all rural strata except stratum 1):

$$V\hat{a} r \,_{ppswr}(\hat{Y}_{sj}) = \sum_{s} \frac{1}{n_{sj}(n_{sj}-1)} \sum_{i=1}^{n_{sj}} \frac{Z_{s^{2}} Y_{sij^{2}}}{Z_{si^{2}}} - n_{sj^{2}} Y_{sj^{2}}$$

where $\hat{Y}_{sij} = D_{si}^{\dot{c}} \frac{H_{si\,2j}}{h_{si\,2j}} \sum_{k=1}^{h_{si\,2j}} y_{si\,2\,jk}$

b) For strata with SRSWOR selection at first stage (for rural stratum 1 and all urban strata):

$$\widehat{Var \, srswor}(\widehat{Y} \, sj) = \frac{N \, s^2}{n \, sj} \left(1 - \frac{n \, sj}{N \, s}\right) s^2 \, bsj + \frac{N \, s}{n \, sj} \sum_{i=1}^{n \, sj} \left(v \, wsi \, 1j + v \, wsi \, 2j\right)$$

where

$$s^{2} bsj = \frac{1}{n sj - 1} \left[\sum_{i=1}^{n sj} \hat{Y} sij^{2} - \frac{(\sum_{i=1}^{n sj} \hat{Y} sij)^{2}}{n sj} \right] ,$$

$$v_{wsi 1j} = \frac{H^2_{si 1j}}{h_{si 1j}} \left(1 - \frac{h_{si 1j}}{H_{si 1j}}\right) \frac{1}{h_{si 1j} - 1} \sum_{k=1}^{h_{si 1j}} y^2_{si 1 jk} - \frac{\left(\sum_{k=1}^{h_{si 1j}} y_{si 1 jk}\right)^2}{h_{si 1j}}$$

$$v_{wsi2j} = \frac{(D_{si} \dot{c} H_{si2j})^{2}}{h_{si2j}} (1 - \frac{h_{si2j}}{D_{si} \dot{c} H_{si2j}}) \frac{1}{h_{si2j} - 1} \sum_{k=1}^{h_{si2j}} y^{2}_{si2jk} - \frac{(\sum_{k=1}^{h_{si2j}} y_{si2jk})^{2}}{h_{si2j}}$$

$$\hat{Y}_{sij} = \begin{bmatrix} H_{si1j} & h_{si1j} \\ h_{si1j} & \sum_{k=1}^{h_{si1j}} & y_{si1jk} + D_{si}^{t} & H_{si2j} \\ h_{si2j} & \sum_{k=1}^{h_{si2j}} & y_{si2jk} \end{bmatrix} ,$$

c) For urban stratum with sub-stratum formation:

$$\widehat{Var(\hat{Y}_j)} = \sum_{t=1}^{2} Va\{\hat{r}_{srswor}(\hat{Y}_{stj})\}$$

where $\widehat{V^{ar_{xrsw}(Y_{xr})}}$ can be obtained from the formula given in (b) above with appropriate choice of N, n, H, h, y etc. relating to the sub-stratum 't' only of stratum 's'.

B) For ratio :

$$M \hat{S} E(\hat{R}) = \frac{1}{(\hat{X})^2} \left[\sum_{s} M \hat{S} E_{s}(\hat{R}) + \sum_{s} M \hat{S} E_{s}(\hat{R}) \right]$$

where s, s' indicate respectively the strata with PPSWR and SRSWOR selection at first stage.

a) For strata with PPSWR selection at first stage (for all rural strata except stratum 1):

$$M\hat{S} E_s(\hat{R}) = \frac{1}{n_s(n_s-1)} \sum_{i=1}^{n_s} \left[\frac{Z_s}{z_{si}} (\hat{Y}_{si} - \hat{R} \hat{X}_{si}) - \frac{1}{n_s} \sum_{i=1}^{n_s} \frac{Z_s}{z_{si}} (\hat{Y}_{si} - \hat{R} \hat{X}_{si}) \right]$$

where

$$\hat{Y}_{sij} = D_{si}^{\iota} \frac{H_{si2j}}{h_{si2j}} \sum_{k=1}^{h_{si2j}} y_{si2jk}$$
,
$$\hat{X}_{sij} = D_{si}^{\iota} \frac{H_{si2j}}{h_{si2j}} \sum_{k=1}^{h_{si2j}} x_{si2jk}$$

b) For strata with SRSWOR selection at first stage (for rural stratum 1 and all urban strata):

$$M\hat{S}Es'(\hat{R}) = N\frac{s\dot{c}}{ns'}(1 - \frac{ns'}{Ns'})\frac{1}{ns' - 1}\sum_{i=1}^{ns'} \left[(\hat{Y}s'i - \hat{R}\hat{X}s'i) - \frac{\sum_{i=1}^{ns'} (\hat{Y}s'i - \hat{R}\hat{X}s'i)}{ns'} \right] + \frac{Ns'}{ns'}\sum_{i=1}^{ns'} \left[vws'il + vws'i2 \right]$$

where

$$\begin{bmatrix}
 \hat{Y} s'i = \sum_{j} \hat{Y} s'ij \\
 \end{pmatrix}, \quad \begin{bmatrix}
 \hat{X} s'i = \sum_{j} \hat{X} s'ij \\
 \end{bmatrix},$$

$$\hat{Y}_{s'ij} = \left[\frac{H_{s'ilj}}{h_{s'ilj}} \sum_{k=1}^{h_{s'ilj}} y_{s'iljk} + D_{s'i}^{i} \frac{H_{s'i2j}}{h_{s'i2j}} \sum_{k=1}^{h_{s'i2j}} y_{s'i2jk} \right] ,$$

$$\hat{X} s' ij = \left[\frac{H_{s'ilj}}{h_{s'ilj}} \sum_{k=1}^{h_{s'ilj}} x_{s'iljk} + D_{s'i}^{t} \frac{H_{s'i2j}}{h_{s'i2j}} \sum_{k=1}^{h_{s'i2j}} x_{s'i2jk} \right] ,$$

$$\boxed{v w s' i l = \sum_{j} v w s' i l j}, \qquad \boxed{v w s' i 2 = \sum_{j} v w s' i 2 j}$$

$$v_{ws'ilj} = \frac{H^{2}s'ilj}{hs'ilj} (1 - \frac{hs'ilj}{Hs'ilj}) \frac{1}{hs'ilj-1} \sum_{k=1}^{hs'ilj} \left(ys'il\ jk - \hat{R} \times xs'ij\ 1k \right) - \frac{\sum_{k=1}^{hs'ilj} (ys'il\ jk - \hat{R} \times xs'ij\ 1k)}{hs'ilj}$$

$$v_{ws'i2j} = \frac{(D_{s'}i^{2}H_{s'}i2j)^{2}}{h_{s'}i2j}(1 - \frac{h_{s'}i2j}{D_{s'}i^{2}H_{s'}i2j})\frac{1}{h_{s'}i2j - 1}\sum_{k=1}^{h_{s'}i2j} \left(y_{s'}i2_{jk} - \hat{R} \times x_{s'}ij_{2k}\right) - \frac{\sum_{k=1}^{h_{s'}i2j}(y_{s'}i2_{jk} - \hat{R} \times x_{s'}ij_{2k})}{h_{s'}i2j}$$

c) For urban stratum with sub-stratum formation:

$$\widehat{MSEs'(\hat{R})} = \sum_{t=1}^{2} \widehat{MSEs't(\hat{R})}$$
 where $\widehat{MSEs't(\hat{R})}$ can be obtained from the

formula given in (b) above with appropriate choice of N, n, H, h, y etc. relating to the substratum 't' only of stratum 's'.

C) Estimates of RSE:

$$\hat{RSE(Y)} = \frac{\sqrt{\hat{a}r(Y)}}{\hat{Y}} \times 100$$

$$\hat{RSE(R)} = \frac{\sqrt{MSE(R)}}{\hat{R}} \times 100$$

4.7 Alternative estimates of errors:

Since samples have been drawn in the form of two independent sub-samples, estimates of errors for $\ ^{\square}$ and $\ ^{\square}$ may also be obtained from differences of sub-sample estimates using indirect formulae.

RURAL *

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY ORGANISATION SOCIO-ECONOMIC SURVEY

CENTRAL	*
STATE	

FIFTY-EIGHTH ROUND: JULY-DECEMBER 2002 SCHEDULE 26: SURVEY OF DISABLED PERSONS

[0] descriptive identification of sample household	d
1. state / u.t.:	5. name of hamlet
2. district:	6. ward / investigator unit / block:
3. tehsil / town*:	7. name of head:
4. village name:	8. name of informant:

[1] identification of sample household

item no.			code				item no.	item	code
						П			
1.	srl. no. of sample village/ block						11.	sub-sample	
2.	round number		5		8		12.	FOD sub-region	
3.	schedule number		2		6		13.	segment number (1 / 2)	
4.	sample (central – 1, state – 2)						14.	second-stage stratum no.	
5.	sector (rural – 1, urban – 2)						15.	sample household number	
6.	state-region						16.	srl. no. of informant (as in col. 1, block 4)	
7.	district		•					1, 2000 ry	
8.	stratum number						17.	response code	
9.	sub-stratum (urban only)			1			18.	survey code	
10.	sub-round						19.	reason for first substitution of original household	

CODES FOR BLOCK 1

item 17: **response code**: informant: cooperative and capable – 1, cooperative but not capable – 2, busy – 3, reluctant – 4, others – 9

item 18: **survey code**: household surveyed: original – 1, substitute – 2; casualty – 3

item 19: **reason for first substitution of original household:** informant busy – 1, members away from home – 2, informant non-cooperative – 3, others – 9

*tick mark ($\sqrt{\ }$) may be put in the appropriate place.

[2] p	particulars of field operation										
srl. no.	item	in	investigator			assistant perintenc		superintendent			
(1)	(2)		(3)			(4)			(5)		
1.	i) name (block letters)		(0)								
	ii) code										
2.	date (s) of :	DD	MM	YY	DD	ММ	YY	DD	MM	YY	
	(i) survey/ inspection (ii) receipt										
	(iii) scrutiny										
	(iv) dispatch										
3.	no. of additional sheets of blocks 4 & 5 attached										
4.	total time taken to canvass schedule 26 (in minutes)										
5.	Signature										

7] remarks by investigator	
8] comments by supervisory officer(s)	

[3]	household characteristics		
srl.	item		code / entry
no.			
1.	household size		
2.	social group (code)		
3.	(1100 1000)	description	-
0.	principal occupation (NCO 1968)	code (3-digit)	
4.	general education of the principal ea	erner (code)	
5.	land possessed (0.00 ha)		
6	average monthly consumer expendit	ture	
7.	no. of disabled members		

Note: 1 acre = 0.4047 hectare

1 hectare = 10,000 sq meter

0.01 = 100 sq meter

hectare

CODES FOR BLOCK 3

item 2: social group: scheduled tribe - 1, scheduled caste - 2, other backward class - 3, others - 9

item 4: **general education of the principal earner**: not literate – 01, literate without formal schooling – 02, literate but below primary – 03, primary – 04, middle – 05, secondary – 06, higher secondary – 07, diploma / certificate course – 08, graduate – 10, post graduate and above – 11

[4] dem	[4] demographic and other particulars of household members															
						whet	for all disabled persons (for codes 1 to 6 in column 7)									
srl. no.	name	relation ship to head (code)	sex (mal e – 1, fema le – 2)	ag e (ye ars)	ma rit al sta tus (co de)	her havin g disab ility? (code)	ext ent of ph ysi cal dis abi	wh eth er the par ent s blo	living arran geme nt (code	ge ner al ed uc ati on (co	whet her any form al vocat ional cours	whet her recei ved any aid/h elp? (code	usual activi ty statu s (code	if code 11 to 51 in col. 14, indus try	whet her worki ng befor e the onset of	if code 1 in col. (16), whether disability caused loss or change of
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)

CODES FOR BLOCK 4

- relationship to head: self 1, spouse of head 2, married child 3, spouse of married child 4, unmarried child 5, grandchild 6, father / mother / father-in-law / mother-in-law 7, brother / sister / brother-in-law / sister-in-law / other relations 8, servant / employee / other non-relatives 9
- col. 6: marital status: never married 1, currently married 2, widowed 3, divorced/separated 4
- col. 7: whether having disability: yes: single: mental 1, visual 2, hearing 3, speech 4, locomotor 5; multiple 6; no 7
- col. 8: **extent of physical disability**: cannot take self-care even with aid/appliance 1, can take self-care with only aid / appliance 2, can take self-care without aid/appliance 3, aid/appliance not tried / not available 4 (*Put a "-" if code 1 in column 7*)
- col.9: whether the parents blood-related: yes -1, no -2, not known -3
- col. 10: **living arrangement**: alone 1, with spouse only 2, with spouse and other members 3, without spouse but with: parents 4, children 5, other relatives 6, non relatives 7
- col. 11: **general education**: not literate 01, literate without formal schooling 02, literate but below primary 03, primary 04, middle 05, secondary 06, higher secondary 07, diploma / certificate course 08, graduate 10, post graduate and above 11
- col. 12: whether any formal vocational course completed: yes: engineering trade -1, non-engineering trade -2; no -3
- col. 13: **whether received any aid/help**: yes from government for: education 1, vocational training 2, aid/appliance 3, corrective surgery 4, govt./semi-govt. job 5, other govt. aid / help 6; any aid / help other than govt. 7; no 8
- col. 14: **usual activity status**: worked in h.h. enterprise (self-employed): own account worker 11, employer 12, worked as helper in h.h. enterprise (unpaid family worker) 21; worked as regular salaried/wage employee 31; worked as casual wage labour: in public works 41, in other types of work 51; did not work but was seeking and/or available for work 81, attended educational institution 91, attended domestic duties only 92, attended domestic duties and was also engaged in free collection of goods (vegetables, roots, firewood, cattle feed, etc.), sewing, tailoring, weaving, etc. for household use 93, rentiers, pensioners, remittance recipients, etc. 94, not able to work due to disability 95, beggars, prostitutes 96, others 97
- col. 17: whether disability caused loss or change of work: loss of work 1, change of work 2, no loss or no change of work 3

[5] particulars of disability of the disabled member																	
srl. no. of persons with disabi- lity (srl. no. as in col. 1, bl. 4)	age (as in col. 5, bl. 4)	type of disability	disability	whether having the disability from birth? (yes – 1, no – 2)	age (years) at onset of the	whether the	if having mental disability, was he/she late in sitting, walking or talking in childhood as compared to other children? (code)	type of	if code 2 in col. 5, cause as known (code)	if the disability is due to burns/in- jury (code 12, 13 in col. 10), place of incident (code)	whether treatment taken / under-going treatment? (code)	whether aid / applia- nce advis-ed? (code)	type of aid / appliance (code)	if code1 how aid / appliance acquired? (code)	in col. 13 whether aid / appliance regularly used? (yes - 1, no - 2)	if code 2 in col. 16, reason	if code 2 in col. 13, reason for not acquiring aid / appliance (code)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
		1. Mental															
		2. Visual															
		3. Hearing															
		4. Speech															
		5. Locomotor ₁															
		6. Locomotor₂															
		1.34 . 1															
		1. Mental 2. Visual															
		3. Hearing															
		4. Speech															

5. Locomotor ₁								
6. Locomotor ₂								
1. Mental								
2. Visual								
3. Hearing								
4. Speech								
5. Locomotor ₁								
6. Locomotor ₂								

CODES FOR BLOCK 5

col. 8: was he/she late in sitting, walking or talking in childhood as compared to other children: yes: sitting— 1, walking — 2, talking— 3, any combination of codes 1 to 3 — 4; cannot recall / not known— 5, no — 6

col. 9: degree / type of disability:

visual disability: no light perception – 1; has light perception but cannot count fingers even with spectacles upto a distance of one meter: normally uses spectacles – 2, normally does not use spectacles – 3; has light perception but cannot count fingers even with spectacles upto a distance of one to three meters: normally uses spectacles – 4, normally does not use spectacles – 5

hearing disability: profound – 1, severe – 2, moderate – 3

speech disability: cannot speak – 1, speaks only in single words – 2, speaks unintelligibly – 3, stammers – 4, speaks with abnormal voice – 5, any other speech defect – 9

locomotor disability: paralysis – 1, deformity of limb – 2, loss of limb – 3, dysfunction of joints of limb – 4, others – 9

col. 10: cause as known:

mental disability: pregnancy & birth related -1, serious illness during childhood -2, head injury in childhood -3, heredity -4, other reasons -9, not known -5

visual disability: sore eyes during the first month of life – 01, sore eyes after one month – 02, severe diarrhoea before the age of six years – 03, cataract – 04, glaucoma – 05, corneal opacity – 06, other eye diseases – 07, small pox – 08, burns – 12, injury other than burns – 13, medical/surgical intervention – 14, old age – 15, other reasons – 99, not known – 16

hearing disability: German measles/ rubella – 01, noise induced hearing loss – 02, ear discharge – 03, other illness – 04, burns – 12, injury other than burns – 13, medical/surgical intervention – 14, old age – 15, other reasons – 99, not known – 16

speech disability: hearing impairment – 01, voice disorder – 02, cleft palate/lip – 03, paralysis – 04, mental illness / retardation – 05, other illness – 06, burns – 12, injury other than burns – 13, medical/surgical intervention – 14, old age – 15, other reasons – 99, not known – 16

locomotor disability: cerebral palsy – 01, polio – 02, leprosy cured – 03, leprosy not cured – 04, stroke – 05, arthritis – 06, cardio-respiratory disease – 07, cancer – 08, tuberculosis – 10, other illness – 11, burns – 12, injury other than burns – 13, medical/surgical intervention – 14, old age – 15, other reasons – 99, not known – 16

- col. 11: **if the disability is due to burns/injury, place of incident**: agricultural field 1, mines 2, factory 3, other work site 4, transport accident 5, home 6, others 9
- col. 12: **whether treatment taken / undergoing treatment**: yes: taken: consulting doctor 1, otherwise 2; yes: undergoing treatment: consulting doctor 3, otherwise 4; attending special school 5, no 6
- col. 13: whether aid / appliance advised: yes: acquired -1, not acquired -2; no -3
- col. 14: **if aid / appliance acquired, type**: hearing aid 01, wheelchair 02, artificial limb 03, crutch 04, splint 05, tricycle 06, callipers 07, spinal brace 08, high powered glasses 10, others 99 (note: code 01 is applicable for hearing disability only, codes 02-08 are applicable for locomotor disability only and code 10 is applicable for visual disability only)
- col. 15: how aid/appliance acquired: purchased 1, assistance from: government 2, non-government organisation 3, others 9
- col. 17: reason for not using: uncomfortable for use -1, difficulty in maintenance and repair -2, others -9
- col. 18: **reasons for not acquiring aid/appliance**: not available 1, expensive 2, not necessary for: economic independence 3, personal independence 4; others 9

[6] partic	[6] particulars of enrolment of disabled persons of age 5-18 years (i.e. entry 5 to 18 in col. 5 and entry 1 to 6 in col. 7 of block 4)								
srl. no. as in col. 1, block 4	age as in col. 5, block 4	whether the child has attended pre-school intervention programme? (yes – 1,	whether ever enrolled in ordinary school? (yes – 1, no – 2)	if code 1 in col. 4, whether continuing? (yes – 1, no – 2)	if code 2 in col. 5, whether discontinued due to onset of disability? (yes – 1, no – 2)	if code 2 in col. 4 or code 2 in col. 5, whether ever enrolled in a special school? (yes – 1, no – 2)	if code 1 in col. 7, whether continuing? (yes – 1, no – 2)	if code 2 in col. 7, reason for non- enrolment (code)	if code 2 in col. 8, reason for discontinuation (code)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

CODES FOR BLOCK 6

col. 9 / col. 10: reason for non-enrolment/discontinuation: due to disability - 01, school not known - 02, difficulty in getting admission - 03, school far away - 04, expensive - 05, parents not interested - 06, for participation in household economic activity - 07, for other economic reasons - 08, for attending domestic chores - 10, other reasons - 99 (codes 02 & 03 are not applicable for col. 10)

Some ICF terminology and definitions of disability

The International Classification of Functioning, Disability and Health, known more commonly as ICF, is a classification of health and health-related domains. These domains are classified from body, individual and societal perspectives by means of two lists: a list of body functions and structure, and a list of domains of activity and participation. Since an individual's functioning and disability occurs in a context, the ICF also includes a list of environmental factors. The ICF is WHO's framework for measuring health and disability at both individual and population levels.

Health condition is an umbrella term for disease (acute or chronic), disorder, injury, or trauma. A health condition may also include other circumstances such as pregnancy, ageing, stress, congenital anomaly, or genetic predisposition. Health conditions are coded using ICD-10.

Functioning is an umbrella term for body functions, body structures, activities, and participation. It denotes the positive aspects of the interaction between an individual (with a health condition) and that of individual's contextual factors (environmental and personal factors).

Disability is an umbrella term for impairments, activity limitations, and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that of individual's contextual factors (environmental and personal factors).

Body functions are the physiological functions of body systems, including psychological functions. "Body" refers to the human organism as a whole, and thus, includes the brain. Hence, mental (or psychological) functions are subsumed under body functions. The standard for these functions is considered to be the statistical norm for humans.

Body structures are the structural or anatomical parts of the body such as organs, limbs and their components classified according to body systems. The standard for these structures is considered to be the statistical norm for humans.

Impairment is a loss or abnormality in body structure or physiological function (including mental functions). Abnormality here is used strictly to refer to a significant variation from established statistical norms (i.e., as a deviation from a population mean within measured standard norms) and should be used only in this sense.

Activity is the execution of a task or action by an individual. It represents the individual's perspective of functioning.

Activity limitations are difficulties an individual may have in executing activities. An activity limitation may range from a slight to a severe deviation in terms of quality or quantity in executing the activity in a manner or to the extent that is expected of people without the health condition.

Participation is a person's involvement in a life situation. It represents the societal perspective of functioning.

Participation restrictions are problems an individual may experience in involvement in life situations. The presence of a participation restriction is determined by comparing an individual's participation to that which is expected of an individual without disability in that culture or society.

Contextual factors are the factors that together constitute the complete context of an individual's life, and in particular, the background against which health states are classified in ICF. There are two components of contextual factors: Environmental Factors and Personal Factors.

Environmental factors constitute a component of ICF, and refer to all aspects of the external or extrinsic world that form the context of an individual's life and, as such, have an impact on that person's functioning. Environmental factors include the physical world and its features, the human-made physical world, other people in different relationships and roles, attitudes and values, social systems and services, and policies, rules and laws.

Personal factors are contextual factors that relate to the individual such as age, gender, social status, life experiences, and so on, which are not currently classified in ICF but which users may incorporate in their applications of the classification.

Facilitators are factors in a person's environment that, through their absence or presence, improve functioning and reduce disability. These include aspects such as a physical environment that is accessible, the availability of relevant assistive technology, and positive attitudes of people towards disability, as well as services, systems and policies that aim to increase the involvement of all people with a health condition in any area of life. Absence of a factor can also be facilitating, for example, the absence of stigma or negative attitudes. Facilitators can prevent an impairment or activity limitation from becoming a participation restriction.

Barriers are factors in a person's environment that, through their absence or presence, limit functioning and create disability. These include aspects such as a physical environment that is inaccessible, lack of relevant assistive technology, and negative attitudes of people towards disability, as well as services, systems and policies that are either non-existent or that hinder the involvement of all people with a health condition in any area of life.

Capacity is a construct that indicates, as a qualifier, the highest probable level of functioning that a person may reach in a domain in the Activities and Participation list at a given moment. Capacity is measured in a uniform or standard environment, and thus reflects the environmentally adjusted ability of the individual. The Environmental Factors component can be used to describe the features of this uniform or standard environment.

Performance is a construct that describes, as a qualifier, what individuals do in their current environment, and so brings in the aspect of a person's involvement in life situations. The current environment is also described using the Environmental Factors component.

Report of the TAC on disability

PREFACE

The Ministry of Statistics & Programme Implementation (MOS&PI) is the apex body in developing standards and definitions for collecting the statistical data on various subjects. It was observed that there were variations in estimates of disability as obtained from NSSO 2002 Survey and Census 2001. The MOS&PI constituted a Technical Advisory Committee (TAC) on Disability statistics to review the conceptual

framework and definitions for the measurement of disability and to examine the reasons of variations in the

estimates of disability as obtained from NSSO 2002 survey and Census 2001.

The TAC worked under the chairmanship of Dr. G. Raveendran, the then Additional DG(CSO). On superannuation of Dr. Raveendran on 30th June 2005, the Secretary MOSPI entrusted the responsibility of heading the Technical Advisory Committee to me. I am pleased to present the report of the TAC on Disability. It has been observed by the Committee that by and large the variations in the estimates of disability are due to the variation in the definitions used by NSSO and the Census. I suggest that for all the future surveys/census, uniform definitions on disabilities may be followed so that the estimates become

comparable.

For the finalization of the definitions we took the advices of specialists such as, Dr. Rajesh Rastogi, Senior Psychiatrist, D/o Psychiatry, Safdarjung Hospital, New Delhi, Dr. T.S. Sidhu, Consultant and Head, ENT, Dr. RML Hospital, New Delhi; Dr. S.C. Goyal, ADG, HOD, Safdarjung Hospital(Rehabilitation Centre), New Delhi and Dr. K.P.S. Malik, HOD, Eye Department, Safdarjung Hospital, New Delhi. Shri R. Rangasayee, Director, Ali Yavar Jung National Institute for the Hearing Handicapped was also associated to develop the definitions for hearing handicapped. The report also includes the input from the institutes under the Ministry of Social Justice and Empowerment. I am thankful to all of them and the institutes for sparing their time in the deliberations and giving their valuable advices. I also thank Dr. Ashok Kumar, Director, Centre Bureau of Health Intelligence, and Directorate General of Health Services for his contribution in finalizing the

definitions.

The efforts made by NSSO, SDRD, the office of the Registrar and Census of India and the Social Statistics Division of the CSO for preparing base papers for the use of TAC are highly appreciated. I would like to put on record the work done by Shri Inder Jeet Singh, Director, PSSU and his team of officers and staff organizing the meetings of the TAC and coordinating with various Ministries/ Organisation concerned and

preparing the draft report.

(Dr.K.V. Rao) Director General & CEO (NSSO)

Place: New Delhi Dated: 17 April 2006

75

Contents

Sl. No.	Subject	Page
	Preface	1
	The lade	_
1.	Introduction	3
2.	Sources of Disability Statistics	3-4
3.	Variation in Disability estimates of NSSO and Census figures on Disability	4
4.	Analysis of Variation in Definitions	4-7
5.	Summary of findings	7-11
6.	General instructions for Investigators/Census enumerators	11-12
7.	Variation in definitions by NSSO, RGI and PWD Act(Annexure-I)	13-19

Report of the Technical Advisory Committee on Disability Statistics

1. Introduction

1.1 A Technical Advisory Committee (TAC) on Disability Statistics was constituted by the Ministry of Statistics & Programme Implementation on 31st January 2005. The Committee was entrusted with the work to review the conceptual framework and definition for the measurement of disability and to examine the reasons of variations in the estimates of disability as obtained from NSSO 2002 Survey and Census 2001. The Committee met four times and deliberated on the various aspects of the disability statistics including reasons for variations in the estimates of disability as available from the two sources of the data. The first two meeting were chaired by Dr. G. Raveendran, the then Additional DG. After the superannuation of Dr. G. Raveendran, Dr. K.V. Rao, Additional DG, NSSO (FOD) was made the Chairman of the TAC. Two meetings were held under the Chairmanship of Dr. K.V. Rao. Specialist Doctors from Safdarjang Hospital and Ram Manohar Lohia Hospital were invited in the sixth meeting to give their views for finalizing the definitions on various disabilities.

2. Sources of Disability Statistics

- 2.1 Disability Statistics is being generated on regular basis through large scale sample surveys conducted by NSSO. NSS first collected information on number of physically disabled persons during 15th round (July 1959-June 1960). Thereafter data on disabled persons were collected in the 16th (July 1960-June 1961), 24th (July 1969-June 1970), 28th (October 1973-June 1974), 36th (July-December 1981), 47th (July-December 1991) and 58th (July December, 2002) rounds.
- 2.2 The surveys undertaken during 15th, 16th, 24th, and 28th rounds were intended mainly to get a count of disabled persons of various kinds. But a comprehensive survey on this subject was carried out for the first time in 36th round. Detailed information relating to magnitude of disability, type of disability, cause, age at onset, and other socio-economic characteristics was collected in this survey. A decade later, in the 47th round (July-December 1991), NSS, covered this subject, with the same basic framework including concepts, definitions and operational procedures as followed in 36th round. All the definitions and concepts were followed uniformly for data collection and processing. Also, data on developmental milestones and behavioural pattern of all children of age 5-14 years, regardless of whether they were physically handicapped or not were collected. Again, the survey on the persons with disabilities was carried out in the 58th round during July-December, 2002. This round also maintained the same definitions and procedures for physical disabilities as were adopted in earlier two rounds. This round, however, extended the coverage by including the mental disability.
- 2.3 Governing council (GC) of NSSO through the working groups with National Experts in different medical institutions, eminent professors, academicians and other important users including Ministry of Social Justice and Empowerment finalised the questionnaire, sampling design, tabulation plan etc. for the survey.
- 2.4 On the other hand, the Indian Census have been providing some data on the physical infirmities. The census questionnaire of 1872 called "House Register" included questions not only on physically disabled like the blind, the deaf and the dumb but the insane / the idiot and the lepers also. Due to constraints in enumeration, the quality of data collected through the census was not

satisfactory and the practice was discontinued after 1931. No attempt was made to collect information on disability through census of 1951, 1961, 1971.

- 2.5 Upon a request from the Ministries of Human Resources Development (HRD) and Social Welfare enumeration of physically handicapped was taken up in 1981 census. Declaration of the year 1981 as the International Year for the Disabled by the UN was also a reason in support of the demand of Ministries of HRD and Social Welfare. Again the enumeration of disabled persons was taken up in 2001 Census of India.
- 3. Variation in Disability estimates of NSSO and Census figures on Disability
- 3.1 The comparative figures on Persons with Disabilities based on NSSO 2002 survey (58th round) and Census 2001are given below:

Type of Disability	NSSO,2002	Census,2001
	(lakh)	(lakh)
Locomotor	106.34	61.05
Visual	28.26	106.35
Hearing	30.62	12.62
Speech	21.55	16.41
Mental	20.96	22.64
Total	207.73	219.07

As per NSSO, 2002 report the number of disabled persons in the county was estimated to be 1.85 crore during July to December 2002. They formed about 1.8 per cent of the total population. The difference in total is due to multiple disabilities. About 10.63 per cent of the disabled persons suffered from more than one type of disabilities.

3.2 In NSSO survey on disability (58th round) information relating to multiple disability was also collected. Particulars, of each type of disability that a person had, were collected separately. In presentation of result on estimates of disabled persons, a person having multiple disabilities was counted only once. Only in tables indicating incidence of different disability multiple disabilities were counted separately against each concerned disability. Therefore, according to NSSO estimate, the number of persons with any disability is 1.85 crores.

4. Analysis of variation in definitions

A comparative statement of definitions for different types of disabilities is given in **Annexure-I**. The analysis of variations in definitions of different types of disabilities as given by NSSO, Census and the Persons with Disability (PWD) Act is attempted in the following paragraphs.

- 4.1 The Persons with Disability (PWD) Act, defines disability in terms of extent of impairment of body structure and body function. The context in which the definitions of disability and categories therein are being examined here relates to the classification of person, as disabled or not, by an enumerator who is given a short training in concepts and definitions. Therefore, the definitions under PWD Act need to be converted into definitions, which are simple and tangible from the point of view of the enumerator as well as the respondents.
- 4.2 The NSS definition of disabled person i.e. 'A person with restrictions or lack of abilities to perform an activity in the manner or within the range considered normal for a human being' seems to be in order, provided the deviation from normal manner is defined in a manner suitable to the above context. It may also be added here that above general definition of disability is based on activity limitation in execution of usual task and not the deviation from the accepted standard of biomedical status of the body of a person. This criterion has been used in examining the category-wise definitions and on the appropriateness of a definition.

Mental Disability:

4.3 The definition under PWD Act can serve only as a basis on which practical definition has to be worked out. The definition used under population census limits mental disability to as characterized by sub normality of intelligence and thus, covers only 'Mental Retardation' category of the PWD Act. On the other hand, NSS definition covers sub-normality of intelligence (as difficulty in understanding routine instructions) and goes further in an attempt to cover mental disability other than 'Mental retardation' by adding other characterization of the behaviours like talking to self, laughing/crying, staring, violence, fear and suspicion without reason. As NSS definition seems to be more comprehensive/ inclusive, NSS 2002 figure of number of mentally disabled is expected to be more than the Census 2001 figure. However, corresponding figures, NSS estimates: 20.96 lakhs, Census figure: 22.64 lakhs are not in accordance with the expected order. In contrast to other categories of disability these figures obtained from two sources are close to each other.

Visual Disability:

4.4 Except including a person with proper vision only in one eye (Population Census) the definitions of Census and NSS are similar in practical terms. NSS has used the counting of fingers as practical measure to verify the blurred vision. Classifying person with proper vision only in one eye as disabled, is not in accordance with the PWD Act. Besides, as mentioned earlier that in general, categorization of a person as disabled is primarily based on activity limitation in execution of usual task in environment relevant to the person and not the deviation from the accepted standard of biomedical status of the body of a person. Inclusion of person with proper vision only in one eye under 'Visually disabled' is not in accordance with this criterion. As expected, the Census figure (at 106.35 lakhs visually disabled person) is higher than the NSS estimate (28.26 lakhs). Only question remain the high extent of difference as we do not expect about 78 lakhs persons under 'one eyed'

category. Partly it may be that many two eyed persons also suffer from low or lack vision in one of the eye due to some internal injury/defect which is not noticed by others from outside.

Hearing Disability:

- 4.5 Census and NSS definition differ in following respect
- a) A person with only one ear functioning normally is classified as disabled in Census but not under NSSO survey.
- b) Under 'Moderate' disability NSS includes as disabled a person who would normally ask to repeat the words spoken by the speaker or would like to see the face of the speaker while he/she spoke or would feel difficulty in conversations. PWD Act does not classify such a person as suffering from 'Hearing Impairment' if he/she has one ear functioning normally. Here again Census definition has given undue weightage to the deviation of body structure from the accepted structure. On the other hand NSS definition of 'Moderate Hearing Disability' may be considered as covering more than what is required or intended under PWD Act. On the basis of the definitions Census figures (12.62 lakhs) was expected to be higher than the NSS estimates (30.62 lakhs). Besides sampling error, inclusion of moderate category of hearing disabled, inclusion of persons having hearing disability in combination with other disability (like speech disability) under both disability categories, may be other reasons for NSS figure being higher than Census figure.

Speech disability

- 4.6 The definitions of Census and NSS are similar so far as a person having speech disability is concerned. Census definition is more simple and qualifies the listener also. It may be noticed that the PWD Act does not include speech disability under its purview.
- 4.7 The reason for NSS figure being higher may be that some persons have speech disability in combination with other disability which is more pronounced than speech disability. These persons would be listed under that pronounced disability alone in Census but under NSS results the person would also be additionally listed as having speech disability.

Locomotor Disability

- 4.8 In case of 'Locomotor Disability' the definition given under PWD Act itself is simple. Both, Census and NSS definitions are in accordance with the definition under the Act except NSS definition includes dwarfs and persons with stiff neck of permanent nature who generally did not have difficulty in the normal movement of body and limbs, as having locomotor disability.
- 4.9 Besides sampling errors, inclusion of dwarfs and persons with stiff neck, and inclusion of persons having multiple disabilities under each category may be responsible for the large variation or at least part of the variation.

Leprosy cured person

4.10 Census and NSS definitions do not consider the loss of sensation or deformities in leprosy cured person for the purpose of disability unless it manifests in the type of disabilities defined under Census and NSS. Activity limitation has been the primary determinants in laying down the definition of disability. A close look at different definitions would show that deviation from the accepted standard of the body structure was judged based on this criterion for including or excluding a person under a disability category. After examining the three categories of 'Leprosy cured person' as given in the PWD Act, it is felt that the third category as defined in PWD Act may be considered for inclusion in Census and NSS definition of disability, as in this case the person suffers from activity limitation due to social attitude.

5. Summary Findings

- 5.1 The Committee found that the variations in the estimates of disability as obtained from NSSO 2002 and Census 2001 are mainly due to different definitions used by these two agencies and hence leading to different coverage of the population. It is, therefore, become a prime objective of the Committee to streamline the various definitions used for any survey and Census of India. The Members were of the opinion that there should be only one definition for each category of the disability and whenever any survey is to be attempted by any department/agency on disability, these uniform definitions should be used so that the estimates remained comparative. Therefore, to finalise the definitions for various disabilities the Technical Advisory Committee consulted specialists from the Hospitals viz. Dr. Rajesh Rastogi, Senior Psychiartrist, D/o Psychiatry, Safdarjung Hospital, New Delhi, Dr. T.S. Sidhu, Consultant and Head, ENT, Dr. RML Hospital, New Delhi; Dr. S.C. Goyal, ADG, HOD, Safdarjung Hospital (Rehabilitation Centre), New Delhi and Dr. K.P.S. Malik, HOD, Eye Department, Safdarjung Hospital, New Delhi. Dr. Ashok Kumar, Director, Central Bureau of Health Intelligence, Directorate General of Health Services, Nirman Bhawan, New Delhi was also associated with the finalization of the definitions. The report also includes the input from the institutes under the Ministry of Social Justice and Empowerment, such as, Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai, National Trust for the Welfare of Persons with Autism Cerebral Palsy Mental Retardation and Multiple Disabilities, New Delhi and National Institute for the Mentally Handicapped, Secunderabad.
- 5.2 The Census being done on a very large scale, it may continue to collect general information about the disabled persons but the definitions may be used as recommended by the Committee. On the other hand, the NSSO may continue to collect detailed information about the disabled persons by deep probing.
- As it is very sensitive to ask any person about their disability, a set of uniform core questions be asked before the probing questions. General instructions for guidance of the investigators/enumerators are given in para-6 of the report. The definitions for various disabilities category-wise as decided by the TAC are given as under:-

General Criteria for judging a disabled person

5.4 A person with restrictions or lack of abilities to perform an activity in the manner or within the range considered normal for a human being may be treated as having disability. This general definition of disability is based on activity limitation in execution of usual task and not the deviation from the accepted standard of biomedical status of the body of a person. The persons who attended/attending special institutions and those who attended/attending normal education institutions against the quota reserved for disabled students or otherwise, will be treated as disabled.

(i) Disability in Seeing/visual disability

5.5 A person who does not have any light perception – both eyes taken together or a person who has light perception but cannot count fingers of a hand (with spectacles/contact lenses if he/she uses spectacles/contact lenses) from a distance of 3 metres (or 10 feet) in good day light with both eyes open is considered as visually disabled. The visually disabled persons may be categorized into two broad groups viz; those with Blindness & those with Low Vision.

Blindness:

5.6 A person who does not have light perception and a person who has light perception but cannot count fingers at a distance of 1 metre even with spectacles is taken as Blind.

Low vision:

- 5.7 A person who has light perception but cannot count fingers up to a distance of 1 to 3 metres even with spectacles is taken as a person with Low Vision.
- 5.8 The core question which will decide whether a person is having absolute blindness/incurable/non correctable blindness is the following:
 - (i) Can you perceive light?

Yes/No

If the answer is no, then the person will be treated as an absolute blind person. If the answer is yes, then it means that the person is not absolutely blind and there is scope for improvement of vision after treatment.

If the answer to question (i) above is yes then the following question may be asked:

- (ii) Can you perceive my hand movements? Yes/ No
- (iii) Can you count fingers of my hand? Yes/ No (The hand is to be kept one metre to three metres away from the person)

The questions (ii) and (iii) are to be asked to the person whose sight is already corrected with the best possible spectacle or lens. Normally, during the survey the questions are asked assuming that the person has the best possible correction in the spectacle/lens he is wearing. If the person suffers from low vision even after taking corrective measures, she/he will be recorded as visually disabled under category 'Low Vision'. Persons with blurred vision who did not have occasion to test their eyesight would improve by using spectacles would be treated as having 'Low Vision'. (The question (i) can be used for assessing prevalence of absolute blindness through census whereas in sample survey further detailed questions may be asked.)

(ii) Disability in speech/speech disability

5.10 A person will be classified as having speech disability if he/she is unable to speak like normal persons.

The core question which will identify a person having speech disability is as under:

(i) Is there any one in the house who is unable to speak like others (normal persons)?

(It may be noted that this question will not be canvassed for children up to three year of age)

(ii) Does he/she not speak at all?

Further probing question may be asked in order to categorise the speech disability:

- (i) Does he/she speak only in single words?
- (ii) Is her/his speech not understood easily by others?
- (iii) Does he/she stammer?
- (iv) Does he/she have any voice problem like hoarse voice or nasal voice?
- (v) Does he/she have any other speech defect such as articulation defects etc.?

Persons who stammer but whose speech is comprehensible will not be classified as disabled by speech.

(iii) Disability in hearing/hearing disability

5.11 A person will be classified as having hearing disability if he/she has any problem in hearing day to day conversational speech when hearing aid is not used. A person who has problem only in one ear will not be considered as having hearing disability.

A person may have the following degrees of hearing disability:

A person, who does not hear at all or can only hear very loud sounds like thunder and crackers, is considered to have **profound disability.** A person who can hear speech only when spoken to very loudly, near the ear is considered to have **severe disability.** A person often asks for repetitions when spoken to or needs to see the face of the person who is speaking is considered to have **moderate disability.** A person who has difficulty in hearing but it does not interfere in day today conversation is considered to have **mild disability.**

Core questions to identify the persons with hearing disability are as under:

- (i) Is there any one in house who has difficulty in hearing day today conversational speech?
- (ii) Does he/she hear only very loud sounds like thunder/crackers?
- (iii) Does he/she hear speech only when it is spoken very loudly near the ear?
- (iv) Does he/she ask for repetitions when spoken to or needs to watch the face of the person who is speaking?
- (v) Does he/she have difficulty in hearing but it does not interfere in day today conversation?

(iv) Disability in movement/locomotor disability

5.12 Persons with

- loss or absence or inactivity of whole or part of hand or leg or both due to amputation, paralysis, cerebral palsy, deformity or dysfunction of joints which affects his/her "normal ability to move self or objects" and
- those with physical deformities in the body (other than limbs), such as, hunch back, deformed spine, etc. regardless of whether the same caused loss or lack of normal movement of body are considered as disable with locomotor disability. Thus, Dwarfs and persons with stiff neck of permanent nature who generally do not have difficulty in the normal movement of body and limbs are also to be treated as disabled.

(v) Mental disability

- 5.13 A mentally disabled person is defined as the one who has difficulty in understanding routine instructions, who does not carry out his/her activities like others of similar age or exhibited behaviors like talking to self, laughing/crying, staring, violence, fear and suspicion without reason. The "activities like others (normal) of similar age" includes activities of communication (speech), self-care (cleaning of teeth, wearing clothes, taking bath, taking food, personal hygiene, etc.), home living (doing some household chores) and social skills. The mentally disabled are categorized into two groups viz. mentally retarded and mentally ill. If persons with mental disability manifests this behavior since birth/childhood but before 18 years of age and the person was late in talking, sitting, standing or walking, they are classified as 'mentally retarded'. The remaining mentally disabled persons are classified as 'mentally ill'. The 'normal time' for attaining the milestone after birth in the case of 'sitting' is before 1 year, for 'walking' it is before 2 years and for 'talking' it is 'before 3 years'.
- 5.14 In the category of mental disability, both the mental retardation and mental illness should be elicited separately. As in the PWD Act both are listed as separate disability.

Core Questions to identify a person with **Mental Retardation** are as under:

- (i) Is there anyone in family who has difficulty in understanding instructions, and who does not carry out his/ her activities like others of his age/ her age? such as;
 - Motor activities, head holding, sitting, standing, walking, grasping, manipulation

- Activities of speech and communication
- Activities of self care, brushing teeth, dressing, bathing, feeding, toileting etc.
- Personal hygiene
- Activities of household chores
- Activities of play and socialization
- (ii) Is he/ she late in sitting, standing, talking or walking?
- (iii) Is the abnormal behavior of the person was observed since birth or developed before 18 years of age?

If the responses to these three questions are in affirmative, it suggests that the person may be suffering from mental retardation.

Core Questions to identify persons with **Mental Illness** are as under:

- (i) Is there any one in family who does not look after his/her personal hygiene like brush his teeth, take a bath, have regular meals and dresses properly?
- (ii) Is he /she show abnormal behavior like violence, laughing and weeping without reason, suspicious, talking to self, hearing voices when alone and irrelevant talks?
- (iii) Is he /she has problems in communication and understanding the verbal and non-verbal messages?
- (iv) Does he/she has problems related to work and social relationship?

If the answer is in the affirmative to all four questions then it suggests that the person may be suffering from mental illness.

(Persons, who show signs of mental fatigue, lack of understanding and who depend on others for daily routine on account of being old, will not be considered as mentally disabled.)

(vi) Leprosy Cured Persons

- 5.15 Any person who has been cured of leprosy but is suffering from-
 - (i) Loss of sensation in hands or feet as well as loss of sensation and paresis in the eye and eye-lid but with no manifests deformity;
 - (ii) Manifest deformity and paresis; but having sufficient mobility in their hands and feet to enable them to engage in normal economic activity;
 - (iii) Extreme physical deformity as well as advanced age which prevents him from undertaking any gainful occupation, and the expression "leprosy cured" shall be construed accordingly;

Only the persons who have been cured of leprosy and are having type(iii) (as mentioned above) kind of disability will be considered as disabled. The other two types given above will not be considered as disabled.

6. General instructions for Investigators/Census enumerators

- (i) The question(s) on disability will be asked of all persons in the household;
- (ii) This is a sensitive question and needs to be asked carefully/indirectly so that the feelings of the respondent and/or any other member of the household are not hurt.
- (iii)Explain the actual purpose of the question;
- (iv)Emphasize that the information on the member and the type of disability would help the government in planning for the welfare of the disabled;
- (v) Find out if any member of the household is suffering from any physical or mental disability;
- (vi)The disability of a person will be decided with reference to the date of enumeration:
- (vii) While the main respondent will be answering all the questions; enumerator/investigator will make every possible effort to seek information from the disabled member of the household herself/himself, if she/he is present in the household;
- (viii) In case, the disabled member is not available at the time of census/survey, the enumerator/investigator will try to contact such member at the time of revisional round/ or second visit;
- (ix)A person may have two or more types of disability. Only the most pronounced one as reported by the disabled person/information will be recorded.
- (x) Persons with temporary disability on the date of enumeration/ survey (like stiff neck/back, injury etc.) will not be treated as disabled.

Category	Census	NSSO	PWD Act
(i)Disability	Five types of disabilities identified for Census 2001	A person with restrictions or lack of abilities to perform an activity in the manner or within the range considered normal for a human being was treated as having disability. It excluded illness/injury of recent origin (morbidity) resulting into temporary loss of ability to see, hear, speak or move.	"Person with disability" means a person suffering from not less than forty per cent of any disability as certified by a medical authority; "Disability" means-(i) Blindness;(ii) Low vision;(iii) Leprosy-cured;(iv) Hearing impairment;(v) Loco motor disability;(vi) Mental illness;(vii) Mental retardation.

Category	Census	NSS	PWD Act
(ii)Mental disability	A person who lacks comprehension appropriate to his/her age will be considered as mentally disabled. This would not mean that if a person is not able to comprehend his/her studies appropriate to his /her age and is failing	Persons who had difficulty in understanding routine instructions, who could not carry out their activities like others of similar age or exhibited behaviours like talking to self, laughing / crying, staring, violence, fear and suspicion without reason were considered as mentally disabled for the purpose of the survey. The "activities	"Mental illness" means any mental disorder other than mental retardation; "Mental retardation" means a condition of arrested or incomplete development of mind of a person which is specially

to qualify examination is mentally disabled	like others of similar age" included activities of communication (speech), self-care (cleaning of teeth, wearing clothes, taking bath, taking food, personal hygiene, etc.), home living (doing some household chores) and social skills.	characterized by sub normality of intelligence;
	chores) and social skills.	

Annexure-I (Contd...)

Category	Census	NSS	PWD Act
(iii)Visual disability	A person who cannot see at all (has no perception of light) or has blurred vision even with the help of spectacles will be treated as visually disabled. A person with proper vision only in one eye will also be treated as visually disabled. A person may have blurred vision and had no occasion to test whether his/her eye- sight would improve by using spectacles. Such person would also be treated as visually disabled	By visual disability, it was meant, loss or lack of ability to execute tasks requiring adequate visual acuity. For the survey, visually disabled included (a) those who did not have any light perception - both eyes taken together and (b) those who had light perception but could not correctly count fingers of hand (with spectacles/contact lenses if he/she used spectacles/contact lenses) from a distance of 3 meters (or 10 feet) in good day light with both eyes open. Night blindness was not considered as visual disability.	"Blindness" refers to a condition where a person suffers from any of the following conditions, namely:- (i) Total absence of sight. or (ii) Visual acuity not exceeding 6160 or 201200 (snellen) in the better eye with correcting lenses; or (iii) Limitation of the field of vision subtending an angle of 20 degree or worse; "Person with low vision" means a person with impairment of visual functioning even after treatment or standard refractive correction but who uses or is potentially capable of using vision for the planning or execution of a task with appropriate assistive device;

Category	Census	NSS	PWD Act
(iv)Hearing disability	A person who cannot hear at all or can hear only loud sound will be considered as having hearing disability. Also a person who cannot hear through one ear but the other is functioning normally is considered as having hearing disability.	This referred to persons' inability to hear properly. Hearing disability was judged taking into consideration the disability of the better ear. In other words, if one ear of a person was normal and the other ear had total hearing loss, then the person was judged as normal in hearing for the purpose of the survey. Hearing disability was judged without taking into consideration the use of hearing aids (i.e., the position for the person when hearing aid was not used). Persons with hearing disability might be having different degrees of disability, such as profound, severe or moderate. A person was treated as having 'profound' hearing disability if he/she could not hear at all or could only hear loud sounds, such as, thunder or understands only gestures. A person was treated as having 'severe' hearing disability if he/she could hear only shouted words or could hear only if the speaker was sitting in the front. A person was treated as having 'moderate' hearing disability if his/her disability was neither profound nor severe. Such a person would usually ask to repeat the words spoken by the speaker or would like to see the face of the speaker while he/she spoke or would feel difficulty in conducting conversations.	"Hearing impairment" means loss of sixty decibels or more in the better ear in the conversational range of' frequencies;

Category	Census	NSS	PWD Act
(v)Speech disability	A person will be recorded as having speech disability if he/she is dumb. A person whose speech is not understood by a listener of normal comprehension and hearing will be considered having speech disability. A person who stammers but whose speech is comprehensible will not be classified as having speech disability.	This referred to persons' inability to speak properly. Speech of a person was judged to be disordered if the person's speech was not understood by the listener. Persons with speech disability included those who could not speak, spoke only with limited words or those with loss of voice. It also included those whose speech was not understood due to defects in speech, such as stammering, nasal voice, hoarse voice and discordant voice and articulation defects, etc.	

Category	Census	NSS	PWD Act
(vi)Locomotor disability	 A person who lacks limbs or is unable to use limbs normally, will be considered having movement disability. Absence of a part of a limb like a finger or a toe will not be considered as disability. However absence of all the fingers or toes or a thumb will make a person disabled by movement. Following persons will also be treated as having movement disability: If any part of the body is deformed, Who cannot move himself /herself or without the aid of another person or without the aid of stick etc, If he/she is unable to move or lift or pick up any small article placed near him. A person not able to move normally because of problems of joints like arthritis and has to invariably limp while moving 	A person with - (a) loss or lack of normal ability to execute distinctive activities associated with the movement of self and objects from place to place and (b) physical deformities, other than those involving the hand or leg or both, regardless of whether the same caused loss or lack of normal movement of body — was considered as disabled with locomotor disability. Thus, persons having locomotor disability included those with (a) loss or absence or inactivity of whole or part of hand or leg or both due to amputation, paralysis, deformity or dysfunction of joints which affected his/her "normal ability to move self or objects" and (b) those with physical deformities in the body (other than limbs), such as, hunch back, deformed spine, etc. Dwarfs and persons with stiff neck of permanent nature who generally did not have difficulty in the normal movement of body and limbs was also treated as disabled.	"Locomotor disability" means disability of the bones, joints muscles leading to substantial restriction of the movement of the limbs or any form of cerebral palsy. "Cerebral palsy" means a group of non-progressive conditions of a person characterized by abnormal motor control posture resulting from brain insult or injuries occurring in the pre-natal, perinatal or infant period of development.

Category	Census	NSS	PWD Act
(vii)Leprosy cured person			"Leprosy cured person" means any person who has been cured of leprosy but is suffering from- (i) Loss of sensation in hands or feet as well as loss of sensation and paresis in the eye and eyelid but with no manifest deformity; (ii) Manifest deformity and paresis; but having sufficient mobility in their hands and feet to enable them to engage in normal economic activity;
			(iii) Extreme physical deformity as well as advanced age which prevents him from undertaking any gainful occupation, and the expression "leprosy cured" shall be construed accordingly;

Bibliography

- **1.** Report No. 485 (58/26/1); NSS 58th round (July December 2002); Disabled Persons in India.
- 2. PWD Act, 1995; The Persons With Disabilities: (Equal Opportunities, Protection Of Rights And Full Participation) Act, 1995.
- 3. Disability In India; A Statistical Profile March 2011
- 4. Census of India 2011; Instruction Manual for Updating of Abridged House-list and Filling up of the Household Schedule