



**United Nations Regional Meeting on Disability Measurement and Statistics
in support of the 2030 Agenda for Sustainable Development and the 2020**

**World Population and Housing Census Programme for Africa
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Approaches used to measure Disability through Censuses - Mauritian Experiences

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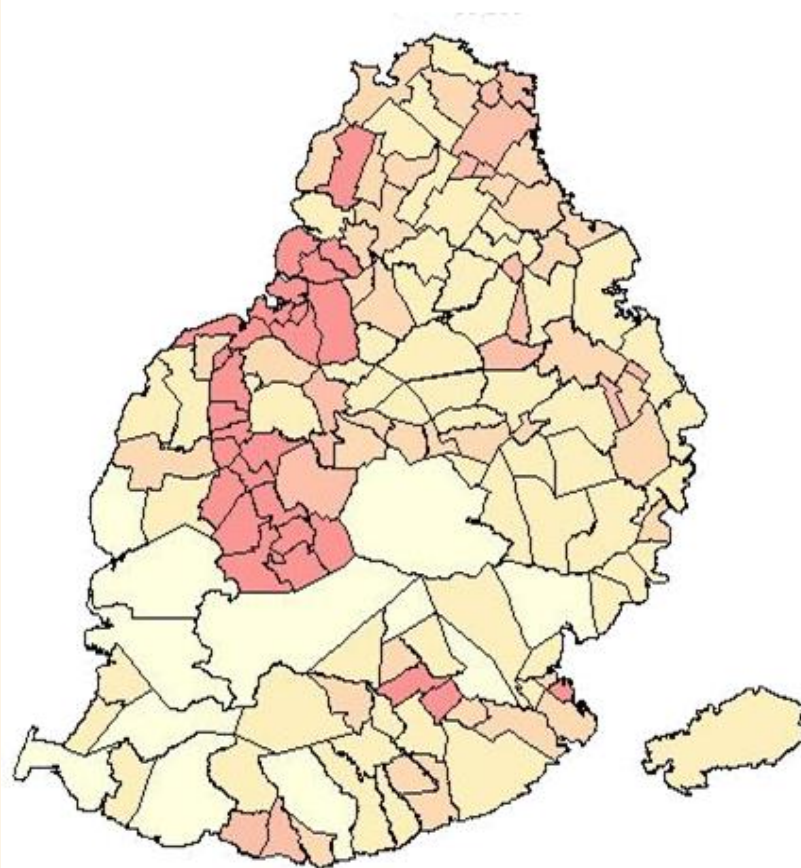
Overview

- Census taking in Mauritius
- Reason for the choice of questions
- Testing of question on disability
- Question on disability for 2011 Census
- Experience about how questions work in the field
- Use of proxy respondent
- Processing of question on disability
- Census dissemination on disability
- Challenges and Way Forward

- *Islands of Mauritius and Rodrigues*

2011 Population Census

- Population : 1.24 mn
- Population growth rate: 0.4%
- Area: 2,040 km²
- Population density: 604 persons/km²
- Literacy rate : 90%



Census taking in Mauritius



- First complete census was undertaken in 1735.
- Censuses are usually conducted every 10 years
- In 2010, because of the general election, the census has to be postponed to 2011.
- Next census is scheduled for 2020.

Census taking in Mauritius



- Statistics Mauritius follows the UN recommendations – “*UN Principles and Recommendations for Population and Housing Censuses*” to conduct censuses.
- Most topics recommended by UN for the Housing and Population Census are covered.
- Disability characteristics is one among these topics.
- Next census, manuals on disability such as “*Principles and Guidelines for Development of Disability Statistics*”- *UNSD* and the Washington Group manual will be used to measure disability.

Reasons for the choice of question on Disability



- Question on disability was first introduced in the 1990 Census.
- **Question:** Does the person have any long term disabilities or handicaps which limit him/her participation in individual and/or social activities which are considered normal for a person of his/her age?
- Write *Yes/No*

Reasons for the choice of question on Disability

1990 Population Census



If Yes, insert as many disabilities as applicable:

- LF: Incomplete use of legs/feet
- AF: Incomplete use of arms/finger
- EYE: Partial or total loss of sight even with glasses
- EAR: Partial or total loss of hearing
- SPCH: Partial or total loss of speech
- SLOW: Slow development/learning difficulties
- BEH: Behaviour problems/mental disability
- CFB: Loss of consciousness, fits, blackouts
- OTHER: Other disabilities

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Disability
Does the person have any long-term disabilities or handicaps which limit his/her participation individual and/or social activities which are considered normal for person of his/her age?
Write 'YES' or 'NO'.
If 'YES', insert as many disabilities as applicable as follows:
LF - Incomplete use of legs/feet
AF - Incomplete use of arms/fingers
EYE - Partial or total loss of sight even with glasses
EAR - Partial or total loss of hearing
SPCH - Partial or total loss of speech
SLOW - Slow development/learning difficulties
BEH - Behaviour problems/mental disability
CFB - Loss of consciousness, fits, blackouts
OTHER - Other disabilities (specify)

Reasons for the choice of question on Disability

- 2000 Population Census
- **Question:** Does the person experience any disabilities (i.e any limitation to perform a daily life activity in a manner considered normal for a person of his/her age), because of a long term physical/mental condition or health problem?
- Write *Yes/No*

Reasons for the choice of question on Disability

- 2000 Population Census

If Yes, insert as many disabilities as applicable:

- SPCH: speaking and talking disabilities
- EAR: hearing and listening disabilities
with hearing aids
- EYE: seeing disabilities even with glasses
- MTION: walking, running and other ambulation
- MANU: manual activity disabilities
- LEARN: disturbance of ability to learn and
acquire education
- BEH: disturbance of behaviour
- CARE: ability to look after oneself etc.
- OTHER: Other disabilities

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Disability
Does the person experience any disability (i.e., any limitation to perform a daily-life activity in a manner considered normal for a person of his/her age), because of long-term physical/mental condition or health problem?
Write: 'YES' or 'NO'.
If 'YES', insert as many disabilities as applicable as follows:
SPCH - speaking and talking disabilities
EAR - hearing and listening disabilities even with hearing aids
EYE - seeing disabilities even with glasses
MTION - walking, running and other ambulation disabilities
MANU - manual activity disabilities such as fingering, gripping and holding
LEARN - disturbance of ability to learn and acquire education
BEH - disturbances of behaviour including antisocial behaviour, maladjustment and liability to injury
CARE - inability to look after oneself with regard to personal care and hygiene, feeding, etc.
OTHER - other disabilities (specify)

Reasons for the choice of questions on Disability

- Question asked on disability at the 2011 Census changed. Why?

P01	P12 A		P12B							
Person Number	Disability									
State if the person has any difficulty to perform a daily-life activity considered normal for his/her age. Y: Yes N: No If «No» go to P13	If «Yes» at P12A, state the severity of all applicable difficulties as follows: 1. Some difficulty 2. A lot of difficulty 3. Cannot do at all									
	A	B	C	D	E	F	G	H	I	
Seeing even if wearing glasses	Hearing even if using a hearing aid	Walking or climbing stairs	Remembering, concentrating or acquiring education and learning	Looking after oneself with regard to feeding, personal care and hygiene	Speaking and talking	Manual activities such as gripping and holding	Disturbances of behaviour, including antisocial behaviour, maladjustment and liability to self injury	Other difficulties, specify		
<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3

- (i) Made use of scanning technology to capture data.

Reasons for the choice of questions on Disability



- (ii) To follow the Washington Group on Disability Statistics. WG has developed, tested and adopted a new set of questions on disability for use and improve the quality and international comparability of disability measures.
- So, questions on disability were updated, and to some extent, based on questions set by the WG.

Reasons for the choice of questions on Disability

- Question on disability set by WG:

To ask about difficulties you may have doing certain activities because of a health problem.

- 1. Do you have difficulty seeing, even if wearing glasses?
- 2. Do you have difficulty hearing, even if using a hearing aid?
- 3. Do you have difficulty walking or climbing steps?
- 4. Do you have difficulty remembering or concentrating?
- 5. Do you have difficulty (with self-care such as) washing all over or dressing?
- 6. Using your usual (customary) language, do you have difficulty communicating, (for example understanding or being understood by others)?

Reasons for the choice of questions on Disability

- Each question has four response categories:
 - (1) No, no difficulty,
 - (2) Yes, some difficulty,
 - (3) Yes, a lot of difficulty and
 - (4) Cannot do it at all.

Testing of question on Disability

- In September 2010, a Pilot Census was carried out.
- Question on disability was tested.

P01 P11

Person Number **Disability** *For person experiencing any difficulty, state the severity*

1: No difficulty 2: Yes, some difficulty 3: Yes, a lot of difficulty 4: Cannot do at all

A. Seeing even if wearing glasses B. hearing even if using a hearing aid C. Walking or climbing stairs D. Remembering, concentrating or acquiring education and learning E. Looking after oneself with regard to personal care and hygiene, feeding F. Speaking and talking G. Manual activities such as fingering, gripping and holding H. Disturbances of behaviour, including antisocial behaviour, maladjustment and liability to self injury. I. Other difficulties, specify

* 5 0 0 0 0 0 0 6 4 0 3 *

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	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	

Testing of question on Disability

- Questions on disability at the 2010 Pilot Census
- Interviewers asked questions as set by WG:

Do you have difficulty

- ✓ A: Seeing even if wearing glasses
- ✓ B: Hearing even if using a hearing aid
- ✓ C: Walking or climbing stairs
- ✓ D: Remembering, concentrating or acquiring education and learning
- ✓ E: Looking after oneself with regard to feeding, personal care and hygiene
- ✓ F: Speaking and talking

- First six questions which were almost same as set by WG were tested.

Testing of question on Disability

Additional domains:

- ❖ Manual activities such as gripping and holding
 - ❖ Disturbance of behaviour including antisocial behaviour, maladjustment and liability to self injury
 - ❖ Other difficulties.
-
- For national comparability purposes, questions on (i) manual activities (ii) Disturbances of behaviour ... and (iii) Other difficulties were kept as in the 1990 and 2000 Censuses

Testing of question on Disability

- If a person was experiencing any difficulty, he/she had to state the severity.
- Scaled response for severity of disability were included and tested:
 - (1) No, no difficulty,
 - (2) Yes, some difficulty,
 - (3) Yes, a lot of difficulty and
 - (4) Cannot do it at all.
- Replaced word “Disability” by “Difficulty”

2011 Population Census questions on Disability

- After the Pilot, question on disability was modified for the 2011 Population Census.
- (i) A filter question was added to know whether a person is suffering from a difficulty or not.

Question: State if the person has any difficulty to perform a daily-life activity considered normal to his/her age.

- *Yes/No*
- *Multiple answers*

P12 A

State if the person has any difficulty to perform a daily-life activity considered normal for his/her age.

Y: Yes
N: No

If «No» go to P13

Y N

2011 Population Census questions on Disability



P01 Person Number	P12 A	P12B Disability									
	State if the person has any difficulty to perform a daily-life activity considered normal for his/her age. Y: Yes N: No If «No» go to P13	If «Yes» at P12A, state the severity of <u>all</u> applicable difficulties as follows: 1. Some difficulty 2. A lot of difficulty 3. Cannot do at all									
		A	B	C	D	E	F	G	H	I	
		Seeing even if wearing glasses	Hearing even if using a hearing aid	Walking or climbing stairs	Remembering, concentrating or acquiring education and learning	Looking after oneself with regard to feeding, personal care and hygiene	Speaking and talking	Manual activities such as gripping and holding	Disturbances of behaviour, including antisocial behaviour, maladjustment and liability to self injury	Other difficulties, specify	
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Y N		1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
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Y N		1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Y N		1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	

2011 Population Census questions on Disability

- If the respondent replied “*No*”, the Interviewer moved the next question.
- If the respondent replied “*Yes*”, the Interviewer asked all the questions on the type of disability one by one.
- For each difficulty reported, the respondent was requested to state the severity.

2011 Population Census questions on Disability

- Scaled response on “No, no difficulty” was excluded.

Why??

- Scaled response was amended as follows:
 - (1) Yes, some difficulty,
 - (2) Yes, a lot of difficulty and
 - (3) Cannot do it at all.

Experience about how questions work in the field

- The traditional face to face interview was the only method used to collect data on previous censuses.
- The interviewer was expected to ask questions on the type of disability from A to I, one by one, and allowed the respondent to state which difficulty he/she had.
- Then, the interviewer asked for its severity where applicable from respondent.
- Data collection on field is becoming very difficult nowadays.
- Since question on disability is very sensitive; during briefings, interviewers were told to ask question on disability with tact.

Experience about how questions work in the field

- Some persons may not admit having a difficulty though they may in fact be suffering from one.
- Some persons may feel uncomfortable to report on their disability/ies (taboo).
- Some persons even over state the severity of their difficulty in order to receive benefits from the Ministry of Social Security.
- Some interviewers were also abused on field.
- Some respondents found it not relevant to ask them all these type of difficulties (A to I) when they are actually not suffering from any.

Experience about how questions work in the field

- Following the last feedback among others on field,
 - (i) a filter question was added
 - (ii) Scaled response on “No, no difficulty” was excluded.

Use of proxy respondent

- The interviewer was expected to record data individually on each member of a household.
- Since a head of household knows the particulars of the person that resides in the household, he can answer questions on the person if he/she is not present.
- Moreover, any member of the household who really had a disability/difficulty, and could not report on his/her difficulty, e.g. a person who was deaf, dumb or mentally retarded etc., in this case, the interviewer approached a proxy respondent who may be his/her mother/father/brother/sister etc. and asked the information needed on the specific person.
- So, in some cases, a proxy respondent is mandatory.

Translation of question

- Translation of question was not a problem per se.
- Though questions in the questionnaire were set in “*English*”, during briefings, interviewers were taught how to ask question in “*creole*” - the colloquial language in Mauritius.

Processing of question on Disability

- Each person was asked to report all the difficulties that he/she had in order to perform a daily-life activity considered normal for his/her age.
- However, at processing level, a person was counted as a disabled person only once, regardless of the number of disabilities reported and its severity.

Processing of question on disability

- **Classification used for tabulation at the 2011 Census**
- The disability categories selected at the 2000 Census were retained for tabulation of the 2011 Census results. They are ranked and listed as below.
 - (i) MTION: Walking or climbing stairs
 - (ii) MANU: Manual activities such as gripping and holding
 - (iii) MTION & MANU: Walking and Manual activities
 - (iv) EYE: Seeing even if wearing glasses
 - (v) EAR: Hearing even if using a hearing aid
 - (vi) EYE & EAR: Seeing and Hearing

Processing of question on disability

- **Classification used for tabulation at the 2011 Census**
 - (vii) SPCH: Speaking and talking
 - (viii) EAR & SPCH: Hearing and speaking & talking
 - (ix) LEARN: Remembering, concentrating or acquiring education and learning
 - (x) BEH: Disturbance of behaviour, including antisocial behaviour, maladjustment and liability to self-injury
 - (xi) CARE: Looking after oneself with regard to feeding, personal care and hygiene
 - (xii) Any person not falling in one of the above categories was counted in a residual “Other” category.

Processing of question on disability

- Among the disabilities reported by a respondent, the one which come first in the classification list, is considered as the first disability, followed by others. Thus a person having reported : (i) D and (ii) E.
 - D : “Remembering, concentrating or acquiring education and learning”- followed by
 - E : “Looking after oneself with regard to feeding, personal care and hygiene” and
 - would be classified in the LEARN category:
Remembering, concentrating or acquiring education and learning.

Processing of question on disability

- Census table on disability. 2011 Census**

Table DVI - Resident population by geographical location, sex and type of disability, if any

Country, Geographical District, Municipal Ward or Village Council Area	Total	Not Disabled	Disabled													Not Stated
			Total	Type of Disability(1)												
				Legs & Feet (MTION)	Arms & Fingers (MANU)	MTION & MANU	Eye	Ear	Eye & Ear	Speech	Ear & Speech	Learn	Behaviour	Personal Care	Other	
REPUBLIC OF MAURITIUS																
Both sexes.	1,236,817	1,171,606	59,868	18,082	3,071	7,100	9,024	2,058	1,020	1,912	687	4,259	5,912	3,446	3,297	5,343
Male.	610,848	577,737	28,987	7,983	1,699	3,375	4,064	952	426	1,109	369	2,216	3,305	1,801	1,688	4,124
Female.	625,969	593,869	30,881	10,099	1,372	3,725	4,960	1,106	594	803	318	2,043	2,607	1,645	1,609	1,219
REPUBLIC OF MAURITIUS - Urban																
Both sexes.	499,349	471,016	24,143	7,310	1,163	2,689	3,567	977	431	706	284	1,800	2,356	1,364	1,496	4,190
Male.	244,688	229,602	11,583	3,126	646	1,199	1,598	483	198	385	145	940	1,367	731	765	3,503
Female.	254,661	241,414	12,560	4,184	517	1,490	1,969	494	233	321	139	860	989	633	731	687
REPUBLIC OF MAURITIUS - Rural																
Both sexes.	737,468	700,590	35,725	10,772	1,908	4,411	5,457	1,081	589	1,206	403	2,459	3,556	2,082	1,801	1,153
Male.	366,160	348,135	17,404	4,857	1,053	2,176	2,466	469	228	724	224	1,276	1,938	1,070	923	621
Female.	371,308	352,455	18,321	5,915	855	2,235	2,991	612	361	482	179	1,183	1,618	1,012	878	532

Processing of question on disability

- For comparability purposes, data on disability was processed as in 2000; that is, if the person reported at least one of these difficulties, he was considered as a disabled person, whatever severity he/she reported.
- But Tables on disability set by the WG are also available with those persons having reported at least one difficulty and with severity as – (i) a lot of difficulty or (ii) Cannot do at all.

Census Dissemination on Disability



- Table report for the last three censuses
- Some tables are as follows:
 - Disabled resident population by sex, age, marital status and type of disability
 - Disabled resident population 2 years of age and over by age, sex and school attendance
 - Disabled resident population 5 years of age and over by educational attainment, age and sex
 - Disabled resident population 16 years of age and over by sex, age and current activity status
 - Employed disabled resident population 16 years of age and over by sex, age and major occupational group
 - Employed disabled resident population 16 years of age and over by sex, age and industry (section)
- Tables disaggregated by sex, age, geographical location.....
- Analytical report on Disability

For more information, check on our website:

- <http://statsmauritius.govmu.org/English/CensusandSurveys/Pages/census/Census-2011.aspx>

Census Dissemination on Disability

2011 Analytical report on Disability



- In 2011, there were some 59,870 disabled persons, compared to 40,790 at the 2000 Population Census.
- The age standardised disability prevalence rate was 40.6 per thousand population against 34.6 in 2000.
- However, going with the WG definition of a disabled person, with severity 3 and 4 for the 2011 Census, there would be around 30,000. In this case, comparison would be misleading!!!

Challenges and Way Forward

- Despite data are captured on disability at each census, more guidance are now needed on the **processing and analysis**.
- We should compare “Like with Like”.
 - Are countries processing data on disability in the same manner?
 - Are results on disability between countries really comparable?

Challenges and Way Forward



- At the Population Census, we do collect data on one and all; i.e., we have full coverage.
 - What happen to those persons reporting difficulties other that the six domains set by the WG?
 - How do we record the other difficulties reported??
(Leaving no one behind !!!).
- Some training/assistance in designing question on disability, processing and analysis will be very helpful.
- Need to know how to make collection of data on disability easier on field and increase the response rate.³⁶

Challenges and Way Forward



- The *UN Principles and Recommendations for Population and Housing Censuses, Revision 3*, is being finalized and do not include documentation on the SDGs.
- So, guidance on the specific disability goals (1,4, 8,10, 11, 16 & 17) are needed so that some indicators can be worked out for the 2000 & 2011 Censuses.

Thus, data collection on disability can be improved at the next Census to meet the SDGs requirements.

Thank you for your attention
Merci bien