



Disability in the Brazilian Census

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Population Census Committee

IBGE, Brazil

8th Meeting of the Washington

Overview

- Legal aspects
- Census 2000
- Consultation Meetings
- Some Results
- Census 2010: Cognitive tests and Joint Pilot test
- Questions
- Remarks

Legal Aspects

- Law Nº 7.853, October 24, 1989
- ... Art. 17 - Serão incluídas no censo demográfico de 1990, e nos subseqüentes, questões concernentes à problemática da pessoa portadora de deficiência, objetivando o conhecimento atualizado do número de pessoas portadoras de deficiência no país ...

Planning for Census 2000

- Meetings with users
- Joint work IBGE/CORDE
- Evaluation of the data obtained from the Pilot Tests and Dress Rehearsal
- Questions and Concepts

IBGE/ CORDE Joint work

- From the beginning of Census Planning (1997) the Coordination for integration of disabled people from the Ministry of Human Rights, worked together with IBGE
- CORDE sent first proposal of contents
- IBGE tested the questions and modified during the planning period

Findings and Decisions

- Why to include this topic in a population census?
- Why it was considered necessary to have more than one question in the census form?
- Screening questions: problems when using them for disability topics
- False negatives and false positives
- Minimum number of questions in the census
- Domains Chosen
- Degrees of severity

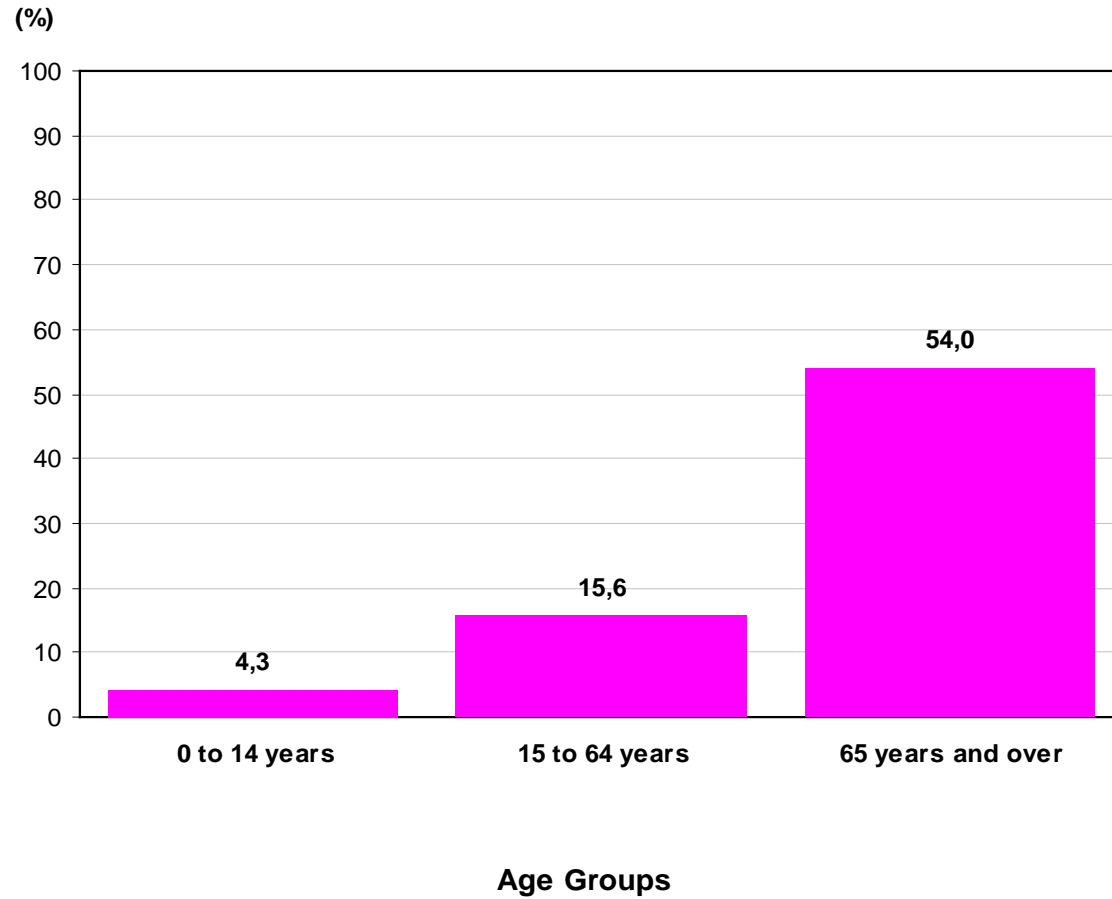
Table 1. Prevalence of Disability in Selected Countries by Source.

Country	Year	Proportion of Population with Disability (%)	Source
New Zealand (1)	2001	19.5	Census and Survey
United States of America	2000	19.3	Census
Australia (2)	1998	19.0	Survey
United Kingdom	2001	17.6	Census
Brazil	2000	14.5	Census
Austria	1986	14.4	Survey
Italy (3)	1999–2000	13.0	Survey
Sweden	1988	12.1	Survey
Netherlands	1986	11.6	Survey
Canada	2001	11.5	Census
Uruguay (4)	2003–2004	11.0	Survey
Poland	1988	9.9	Census
Spain (5)	1999	9.0	Survey
Germany	1992	8.4	Survey
China	1987	5.0	Survey
Chile	2002	2.2	Census
Mexico	2000	1.9	Census
Colombia	1993	1.8	Census

Source: United Nations Statistics Division; IBGE (Brazil); Bureau of the Census (USA); INEGI (Mexico); Statistics New Zealand and INE (Spain).

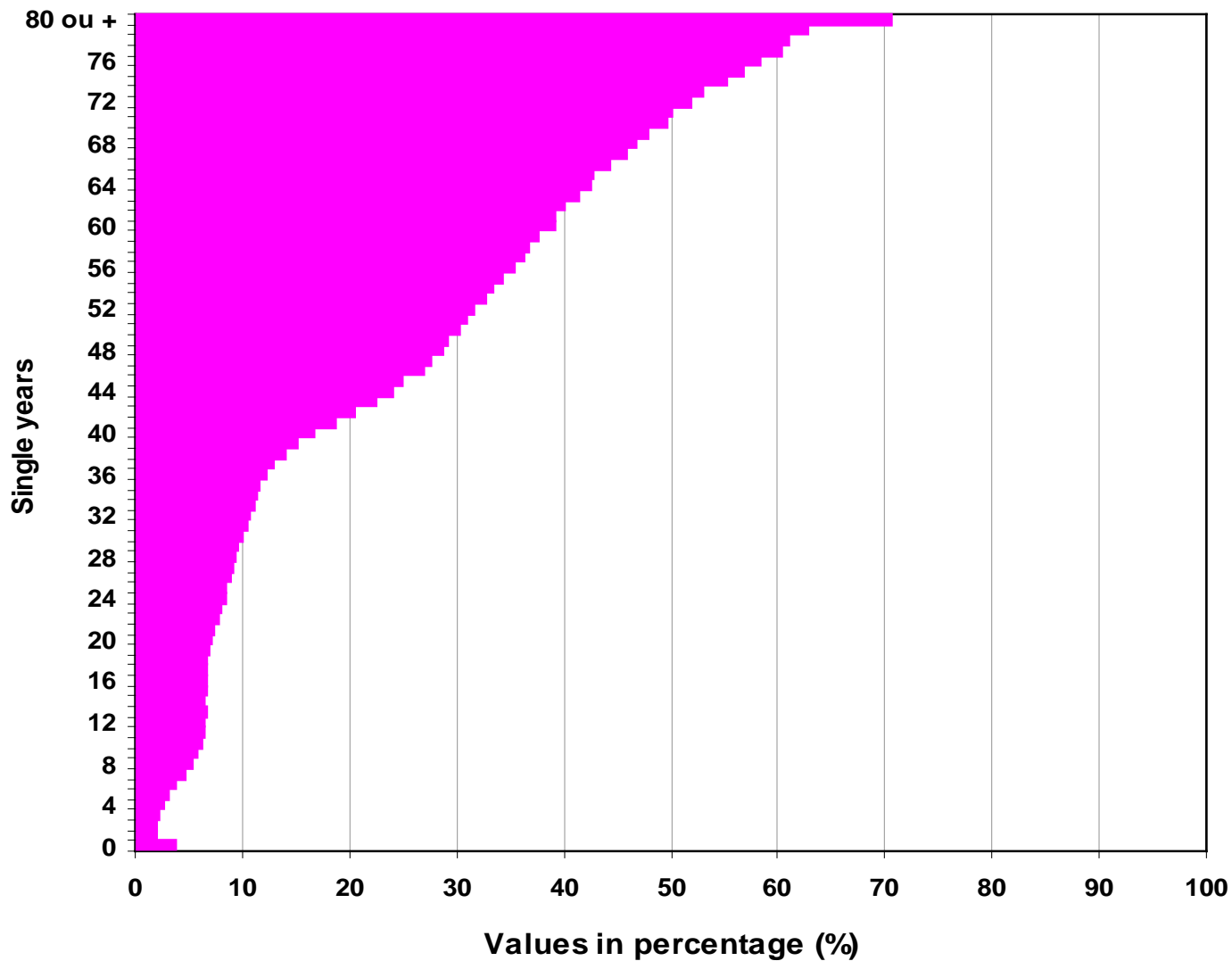
(1) 2001 Household Disability Survey and 2001 Disability Survey of Residential facilities; (2) AIHW; (3) People aged 6 years and over; (4) Encuesta Nacional de Personas con Discapacidad 2003–2004; (5) Encuesta sobre Discapacidades, Deficiencias y Estado de Salud de 1999.

**Proportion of the population with at least one type of disability, by age groups
Brazil - 2000**

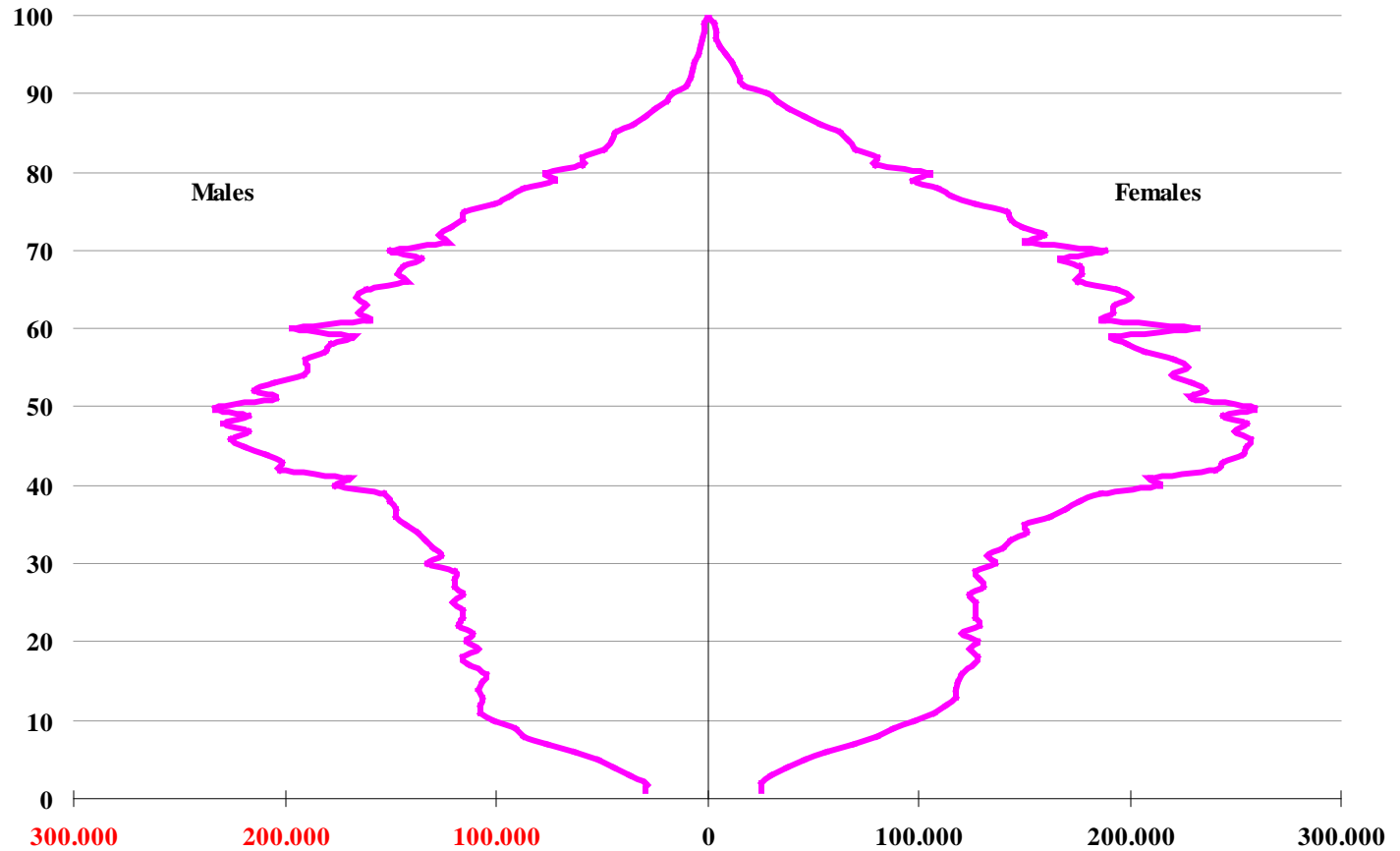


Source: IBGE, 2000 Census.

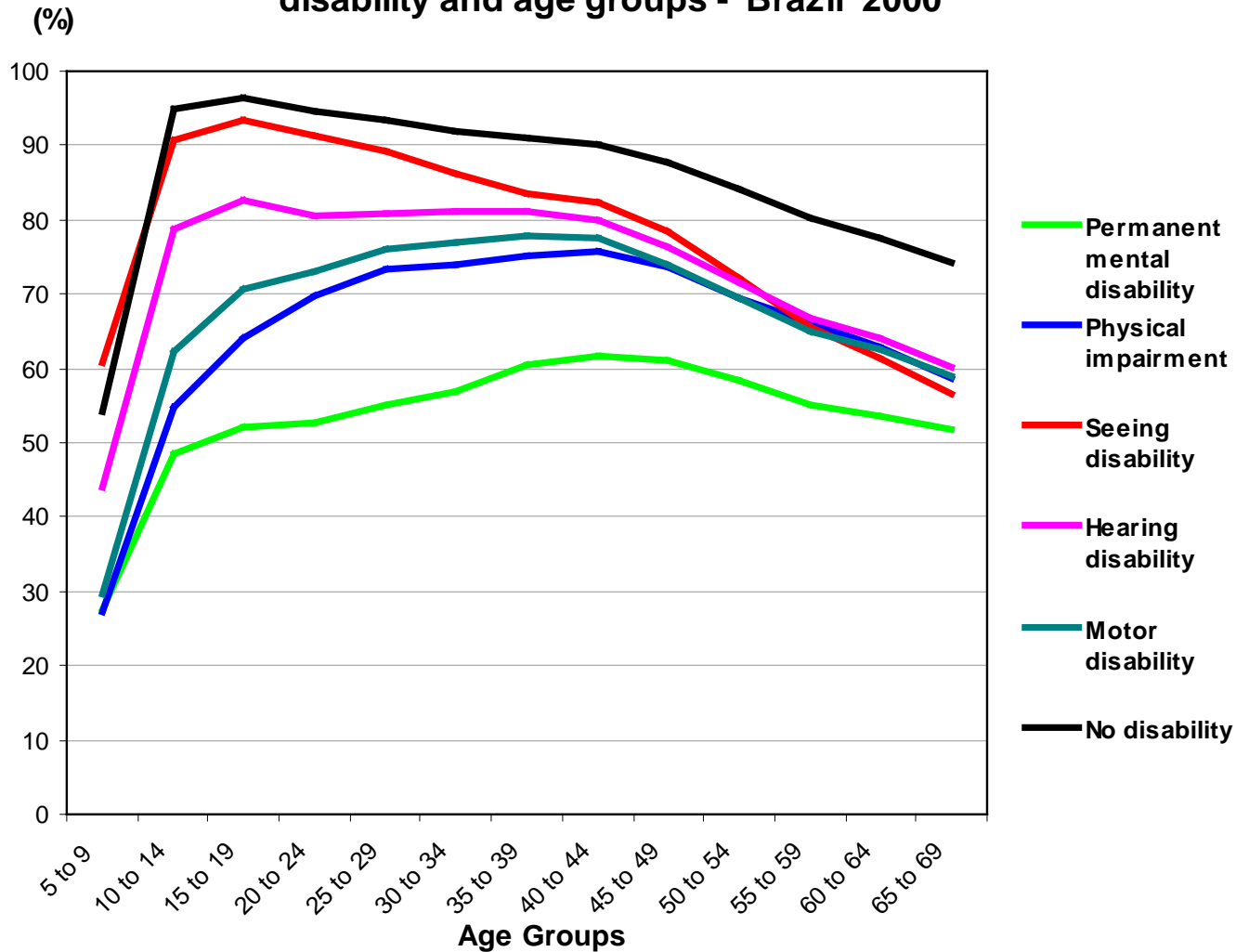
Proportion of the population with at least one type of disability by single years of age Brazil 2000



Age and sex structure of the population with at least one type of disability Brazil 2000



Proportion of literate people aged 5 years and over by type of disability and age groups - Brazil 2000



Source: IBGE, 2000 Census.

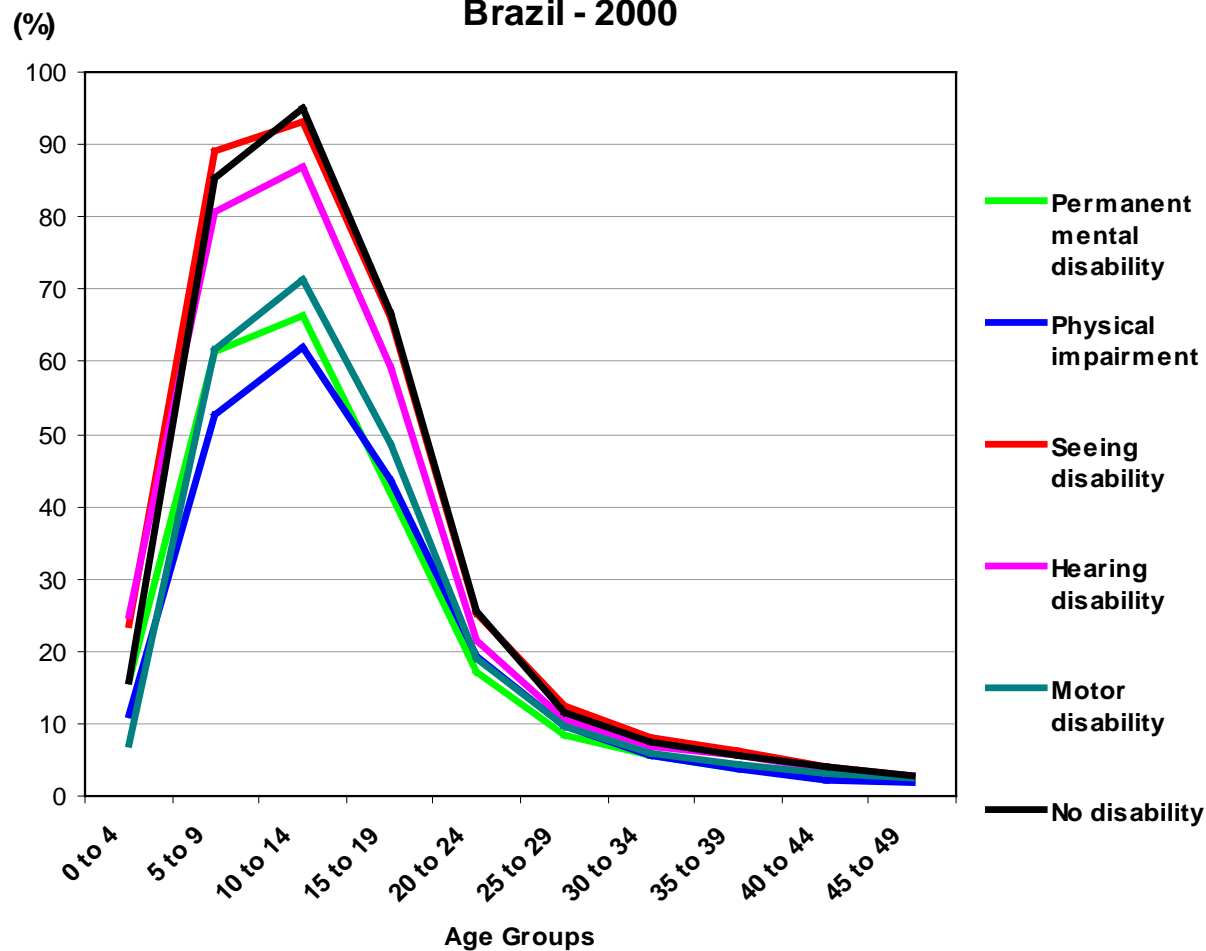
School attendance rate among children aged 7 to 14 years old with and without disability - Brazil and Regions, 2000

Regions	School attendance rate among children aged 7 to 14 years old (%)		
	Total (1)(2)	At least one type of disability	At least one type of severe disability (3)
Brazil	94,5	88,6	74,9
North.....	88,8	86,8	71,5
Northeast.....	92,9	87,5	69,9
Southeast.....	96,3	89,7	78,2
South.....	96,5	89,7	78,7
Central West.....	95,5	90,9	79,5

Source: IBGE, 2000 Census.

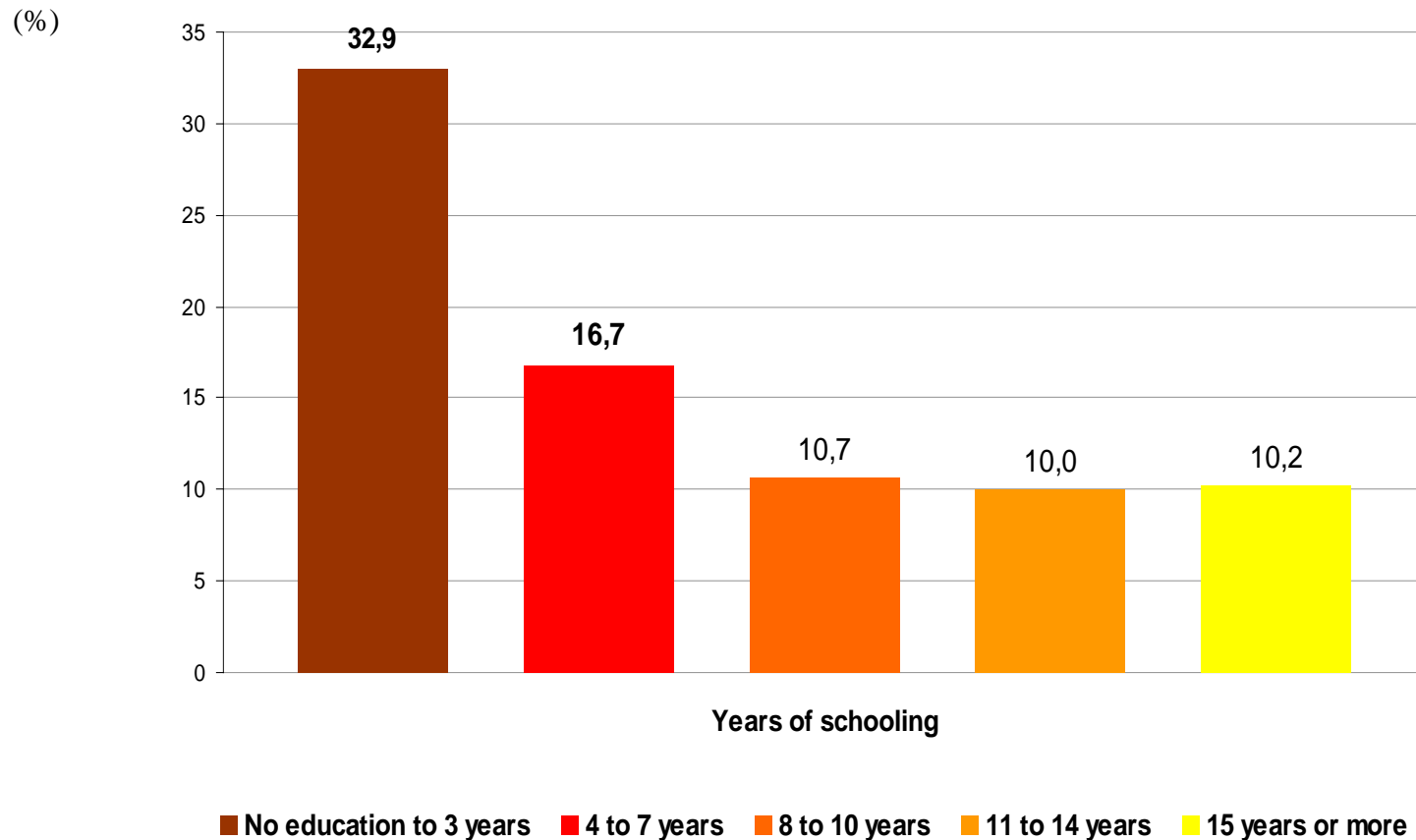
(1) People with more than one type of disability were counted only once. (2) Including people without answer to the questions on disability. (3) Excluding people with some permanent difficulty to see, hear, walk or climb stairs.

Proportion of people attending school by type of disability and age groups Brazil - 2000

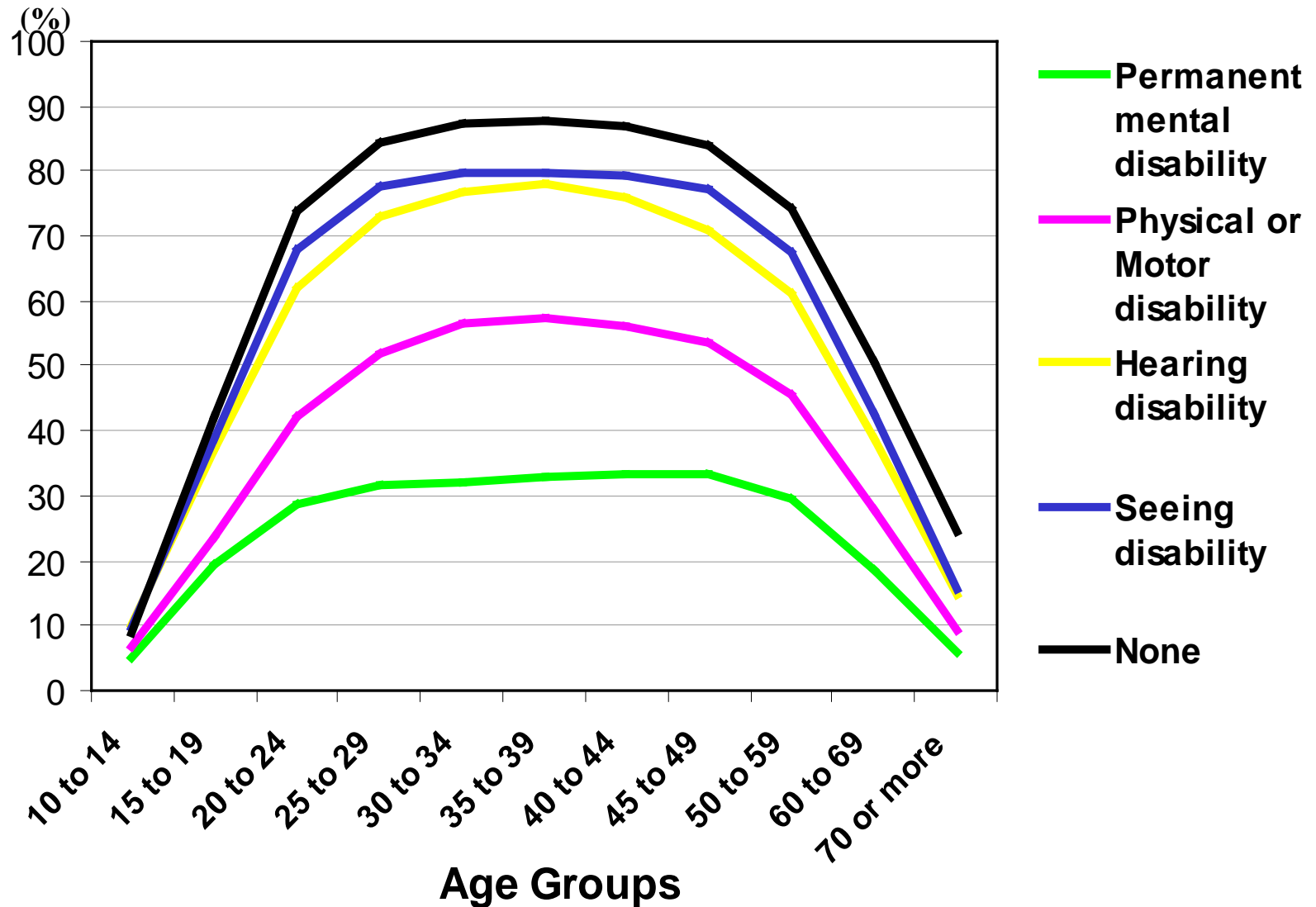


Source: IBGE, 2000 Census.

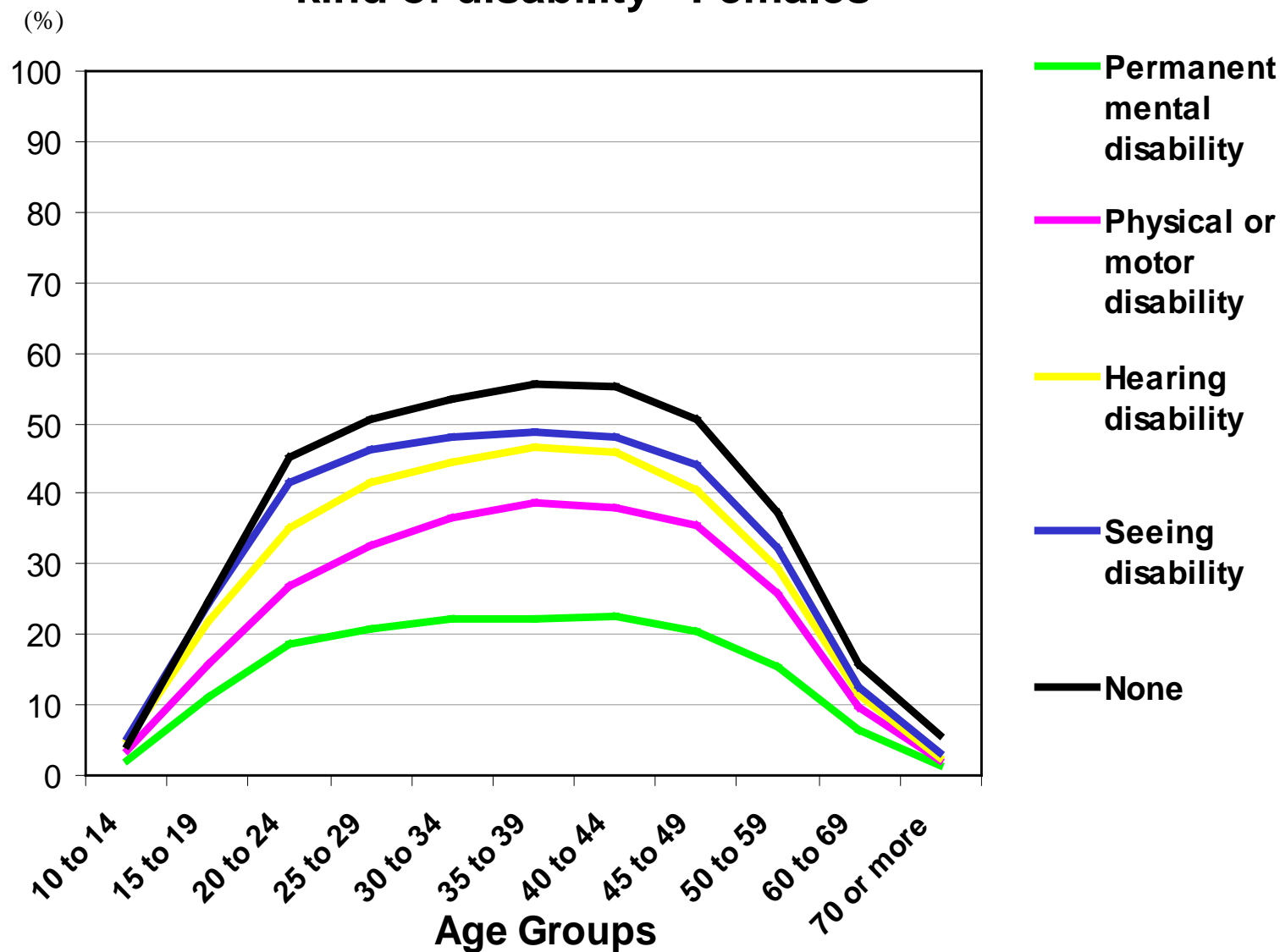
Proportion of population aged 15 years or over, with at least one disability by years of schooling



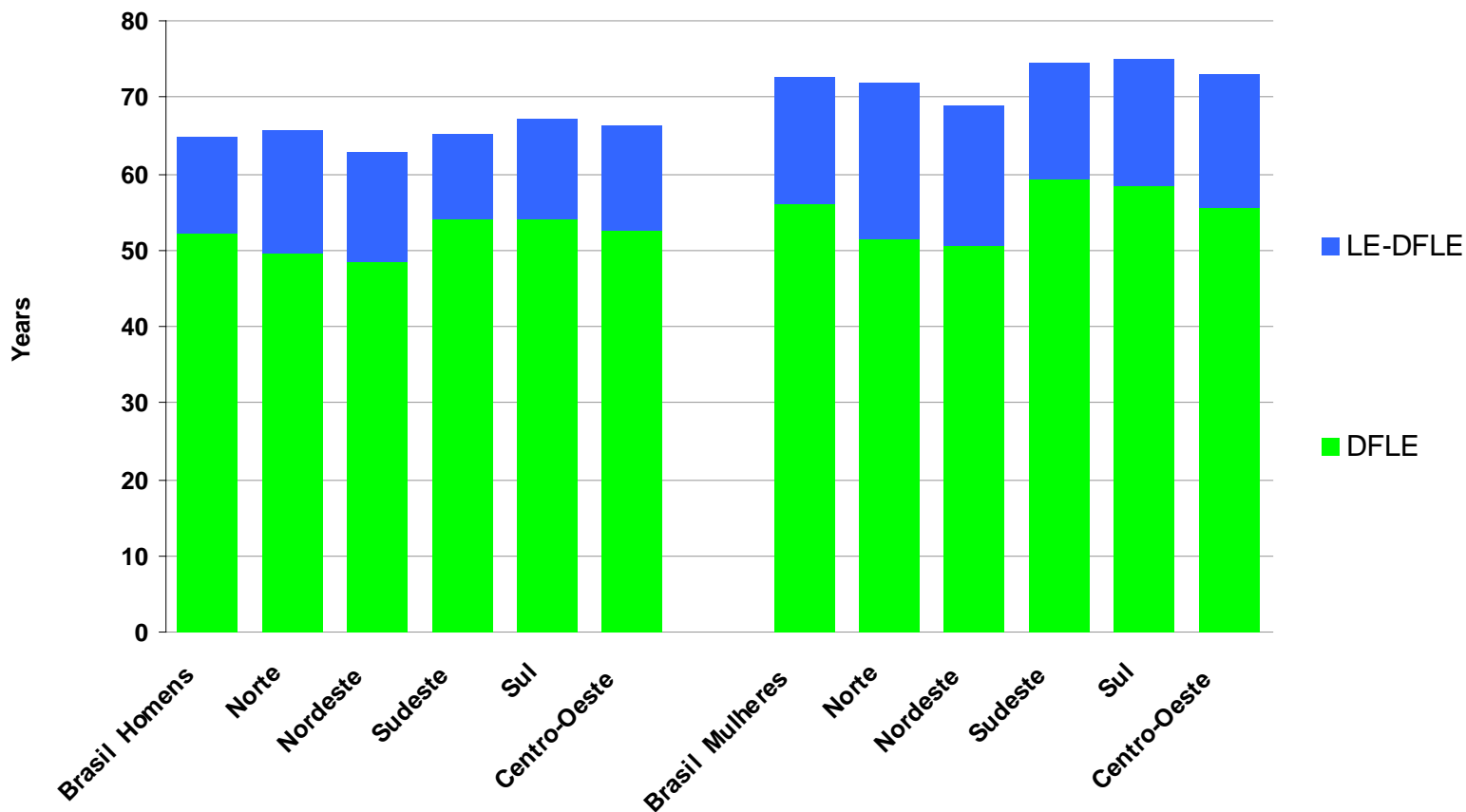
Employment rate of people with each kind of disability - Males



Employment rate of people with each kind of disability - Females



Life expectancy (LE) and disability-free life expectancy (DFLE), by gender and Regions, Brazil 2000



Final Remarks

- Evaluation
- Lessons learnt
- Demand for Intercensal Estimates
- Harmonization with Mercosul, Bolivia and Chile
- Joint Pilot Tests methodology
- Washington Group collaboration

Thank you!

Proposal for 2010 Census Long Form

- After the joint analysis of the pilot test and the evaluation with CORDE we elaborated a proposal for 2010 Census.
- The question tested by IBGE concerning mental disability had performance slightly better than the WG's.
- The core questions proposed by the Washington Group were quite similar to the ones asked in 2000 census. The modifications tested were approved.

1. Do you have permanent difficulty seeing? (If you wear glasses or contact lenses, make your evaluation while wearing them)

- Cannot do at all
- Yes, great difficulty
- Yes, some difficulty
- No, no difficulty

2. Do you have permanent difficulty hearing? (If you use a hearing aid, make your evaluation while using it)

- Cannot do at all
- Yes, great difficulty
- Yes, some difficulty
- No, no difficulty

3. Do you have difficulty walking or climbing stairs? (If you use a prosthesis, cane or auxiliary device, make your evaluation while using it)

- Cannot do at all
- Yes, great difficulty
- Yes, some difficulty
- No, no difficulty

4. Do you have any permanent mental disability that limits you in your daily activities? (such as working, going to school, playing, etc.)

- Yes
- No

5. Do you have difficulty taking care of yourself, such as dressing or bathing?

- Cannot do at all
- Yes, great difficulty
- Yes, some difficulty
- No, no difficulty

Brazil

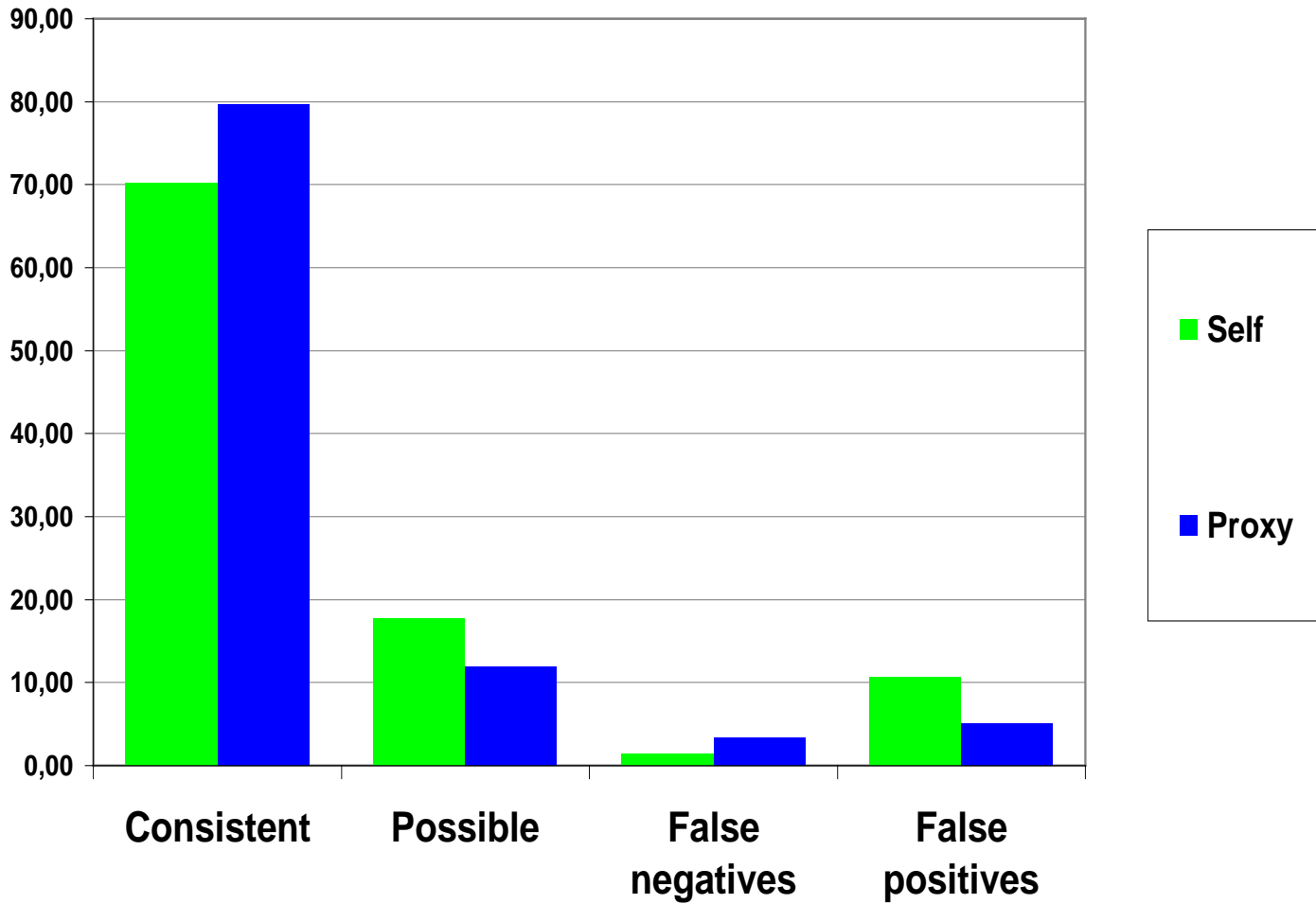
Cognitive Test

- Carried out on April 2006;
- In three Brazilian municipalities:
 - Rio de Janeiro in the Southeast Region;
 - Curitiba in the South Region; and
 - Olinda in the Northeast Region.
- Selection Process:
 - Used 2000 Census Information on Disabled People and visited the selected households
 - Quota Sample of each domain tested
 - Selected Census Tracts with higher density of disabled people

Questionnaire

- Added four questions, called additional questions, which had been used in 2000 Census;
- By request of CORDE we included a question on Body Functions and Structure;
- The order of the categories of response of the additional questions have been modified considering the results of pilot tests preceding 2000 Census:
- The core questions and the categories of response were maintained

Response Patterns (%) Cognition



Remarks

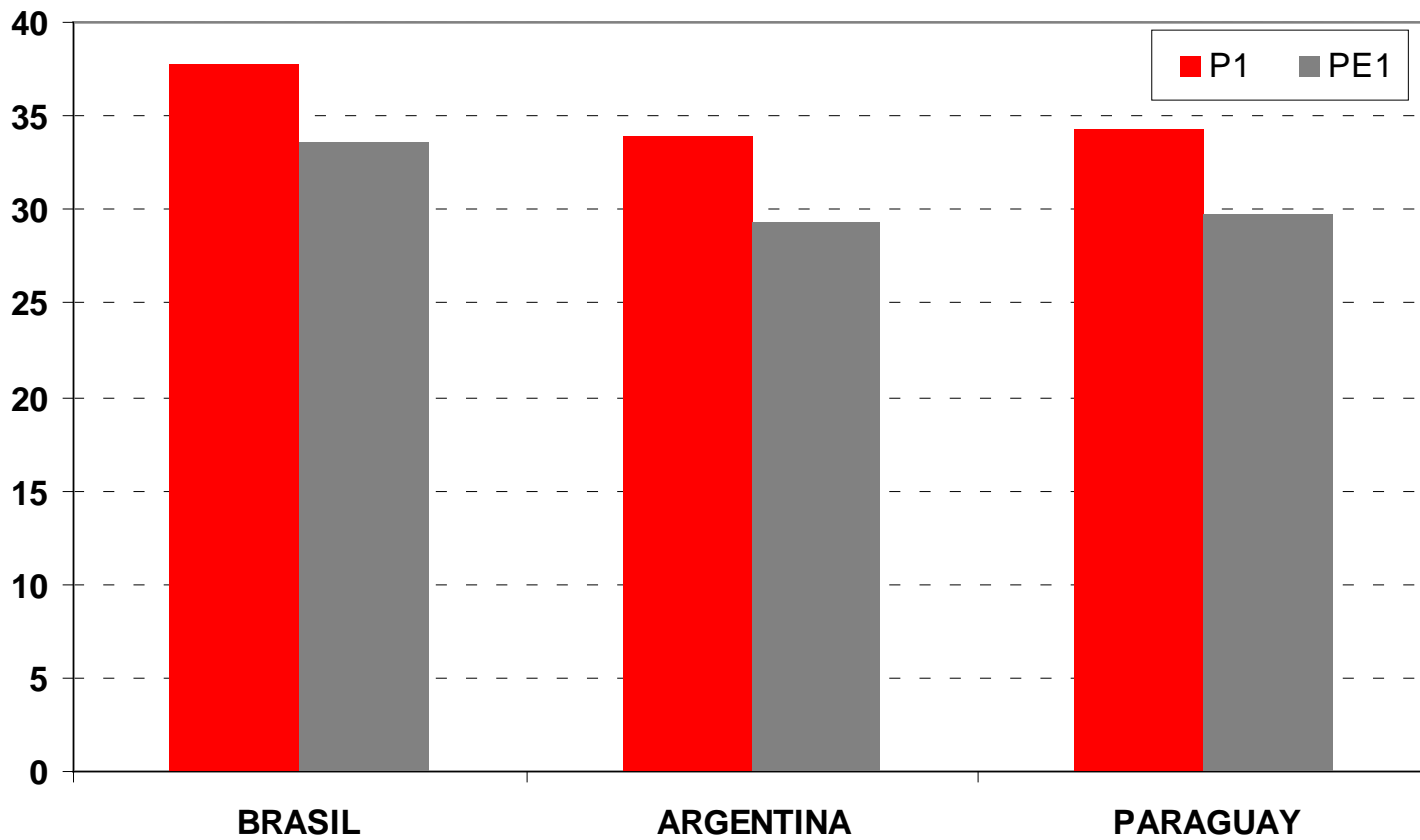
- The answers to the additional questions were generally consistent with the core questions
- When compared with the 2000 Census questions were also compatible, but seemed to detect better some types of problems
- No problems to understand the core questions
- Not so good for children with mental retardation or other problems
- Small proportion of false-negatives or false-positives
- Use for policy making?

Common Census for Mercosul, Bolivia and Chile: First Joint Pilot Test on Disability

- **Brazilian Institute for Geography and Statistics – IBGE,**
- **Instituto Nacional de Estadística y Censos – INDEC, from Argentina**
- **Dirección General de Estadística, Encuestas y Censos – DGEEC, from Paraguay**

- **Carried out in November 2006 in the cities of Foz do Iguacu, Puerto Iguazú and Ciudad del Este, respectively. This pilot test was planned based on the joint analysis of results from cognitive tests performed by the three countries during the first semester of 2006.**

**DISABILITY PREVALENCE
BRASIL- ARGENTINA - PARAGUAY
P1 X PE1**



**DISABILITY PREVALENCE
BRASIL- ARGENTINA - PARAGUAY
P2 X PE2**

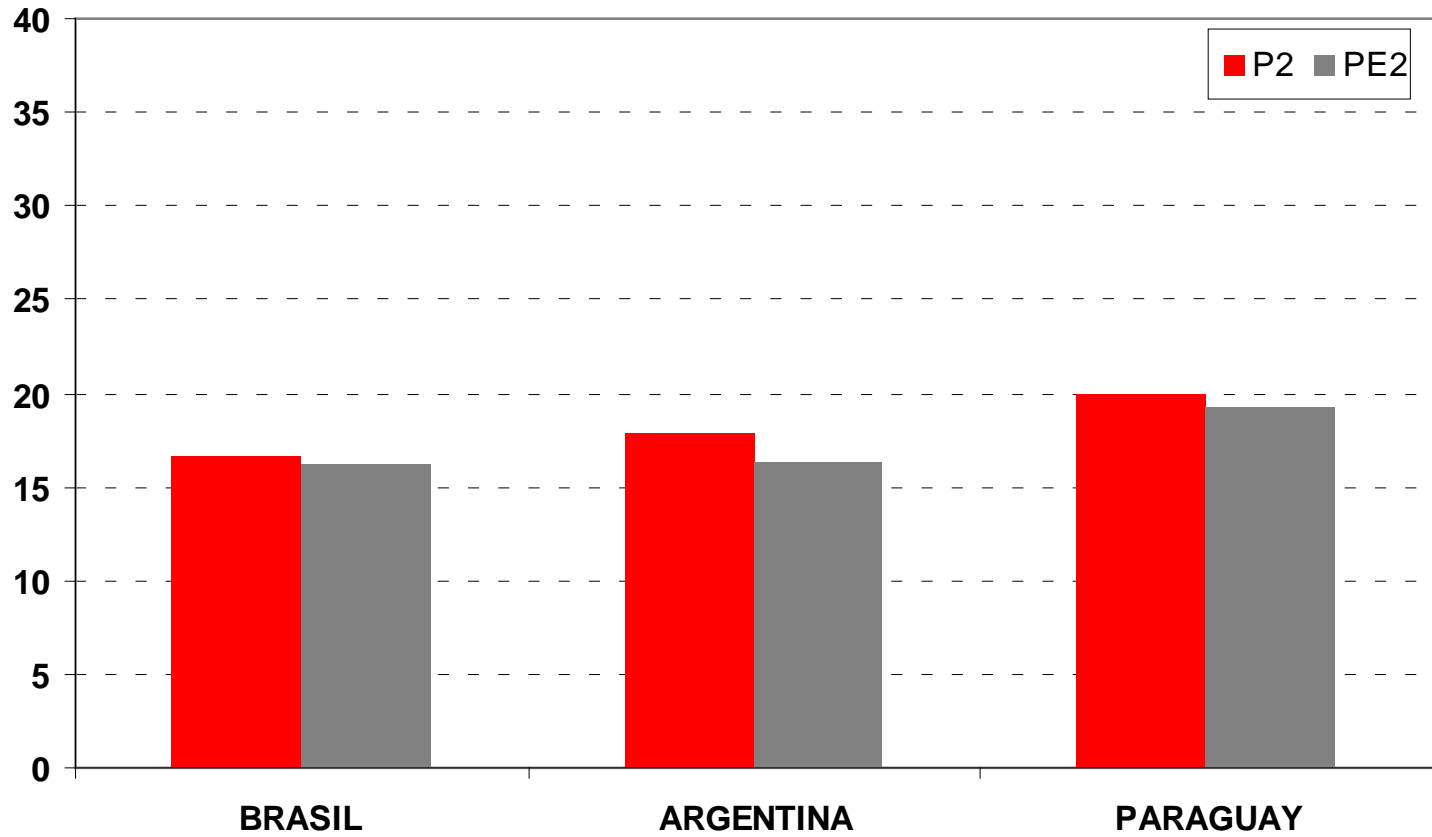


Chart 11

**CORRELATION MATRIX BY COUNTRY AND DOMAIN
I JOINT PILOT TEST: BRAZIL - ARGENTINA - PARAGUAY**

CORE QUESTIONS	SELF CARE											
	EXTENDED QUESTIONS											
	BRASIL				ARGENTINA				PARAGUAI			
	ED0	ED1	ED2	ED3	ED0	ED1	ED2	ED3	ED0	ED1	ED2	ED3
D0	0,82	-0,82	-0,75	-0,66	0,61	-0,61	-0,54	-0,49	0,57	-0,57	-0,56	-0,53
D1	-0,82	0,82	0,75	0,66	-0,61	0,61	0,54	0,49	-0,57	0,57	0,56	0,53
D2	-0,73	0,73	0,83	0,77	-0,64	0,64	0,70	0,64	-0,58	0,58	0,63	0,62
D3	-0,60	0,60	0,73	0,85	-0,60	0,60	0,74	0,77	-0,55	0,55	0,62	0,66

Source: I Prova Piloto Conjunta sobre Deficiência, Brazil, Argentina and Paraguay, Nov. 2006.

Literacy rate among adults aged 15 years old and over in population with and without disability - Brazil and Regions, 2000

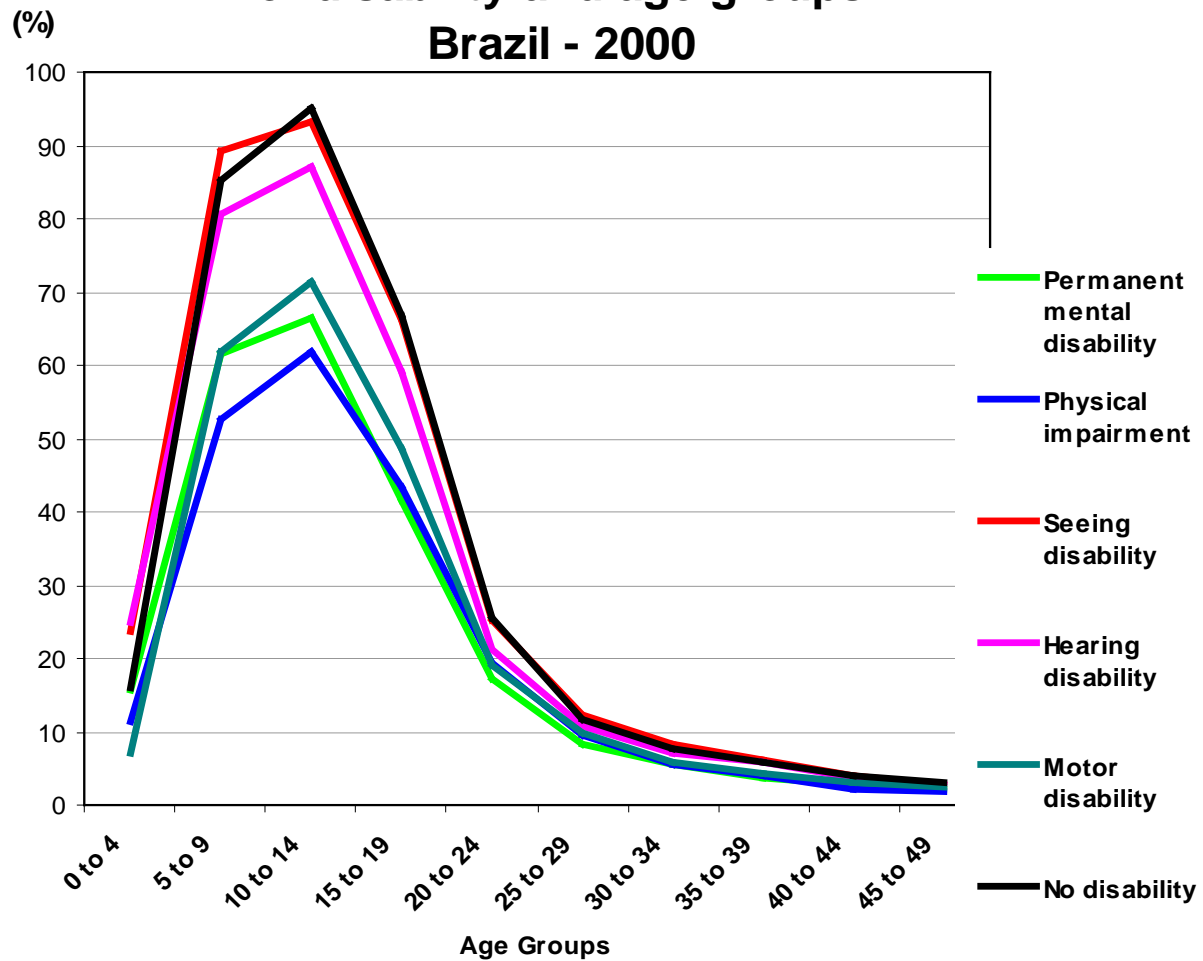
Regions	Literacy rate among adults aged 15 years old and over (%)		
	Total (1)(2)	At least one type of disability	At least one type of severe disability (3)
Brazil	87,1	72,0	61,6
North.....	84,3	71,6	59,5
Northeast.....	75,1	57,9	46,7
Southeast.....	92,3	79,8	69,8
South.....	92,8	81,1	70,9
Central West.....	89,8	75,0	63,3

Source: IBGE, 2000 Census.

(1) People with more than one type of disability were counted only once. (2) Including people without answer to the questions on disability. (3) Excluding people with some permanent difficulty to see, hear, walk or climb stairs.

Proportion of people attending school by type of disability and age groups

Brazil - 2000



Source: IBGE, 2000 Census.

Implementation of the cognitive test

Interviewers from IBGE staff on household surveys	15
Men	6
Women	9
Qualification	High School College
Training	2 days
Forms, Handbook, CD2000 Address File, Maps	
Observers	7
Respondents	406
–Persons with at least one type of disability	227
–Persons with no disability	179

Chart 12

**CORRELATION MATRIX BY COUNTRY AND DOMAIN
I JOINT PILOT TEST: BRAZIL - ARGENTINA - PARAGUAY**

CORE QUESTIONS	COMMUNICATION											
	EXTENDED QUESTIONS											
	BRAZIL				ARGENTINA				PARAGUAY			
	ED0	ED1	ED2	ED3	ED0	ED1	ED2	ED3	ED0	ED1	ED2	ED3
D0	0,51	-0,51	-0,42	-0,27	0,67	-0,67	-0,59	-0,40	0,62	-0,62	-0,66	-0,55
D1	-0,51	0,51	0,42	0,27	-0,67	0,67	0,59	0,40	-0,62	0,62	0,66	0,55
D2	-0,38	0,38	0,58	0,45	-0,66	0,66	0,75	0,52	-0,70	0,70	0,91	0,78
D3	-0,24	0,24	0,40	0,56	-0,47	0,47	0,58	0,72	-0,46	0,46	0,58	0,69

Source: I Prova Piloto Conjunta sobre Deficiência, Brazil, Argentina and Paraguay, Nov. 2006.

1. Do you have any permanent mental disabilities that limit you in your daily activities? (As working, getting school, playing, etc.)

- Yes / No

2. How do you evaluate your capacity to see? (Even with glasses or contact lenses, if used)

- Unable
- Severe permanent difficulty
- Some permanent difficulty
- No difficulty

3. How do you evaluate your capacity to hear? (Even with hearing aid, if used)

- Unable
- Severe permanent difficulty
- Some permanent difficulty
- No difficulty

- 4. How do you evaluate your capacity to walk / climb stairs?
- (Even with walking aids, if used)

- Unable
- Severe permanent difficulty
- Some permanent difficulty
- No difficulty

5. Do you have some of the following impairments?

- Permanent total paralysis
- Permanent paralysis of legs
- Permanent paralysis of one side of the body
- Loss of a member: leg, arm, hand, foot or thumb
- None of the preceding options

- **WHY TO INCLUDE THIS TOPIC IN A POPULATION CENSUS?**
- **WHY WE CONSIDERED NECESSARY TO HAVE MORE THAN ONE QUESTION IN THE CENSUS FORM?**
- **MINIMUM NUMBER OF QUESTIONS IN THE CENSUS**
- **MERCOSUR EXPERIENCE: COGNITIVE TESTS AND PILOT TEST**
- **FALSE NEGATIVES AND FALSE POSITIVES**
- **WHAT CAN BE ASKED AND WHAT CANNOT BE ASKED**
- **SCREENING QUESTIONS: PROBLEMS WHEN USING THEM FOR DISABILITY TOPICS**
- **REMARKS**

People with disability in Brazil: a look at 2000 Census results