

***18th Meeting of The International Network on Health
Expectancy and the Disability Process.
REVES 2006***

***Disability Free Life Expectancy in seven cities of Latin
America and the Caribbean, and sociodemographic factors
associated.***

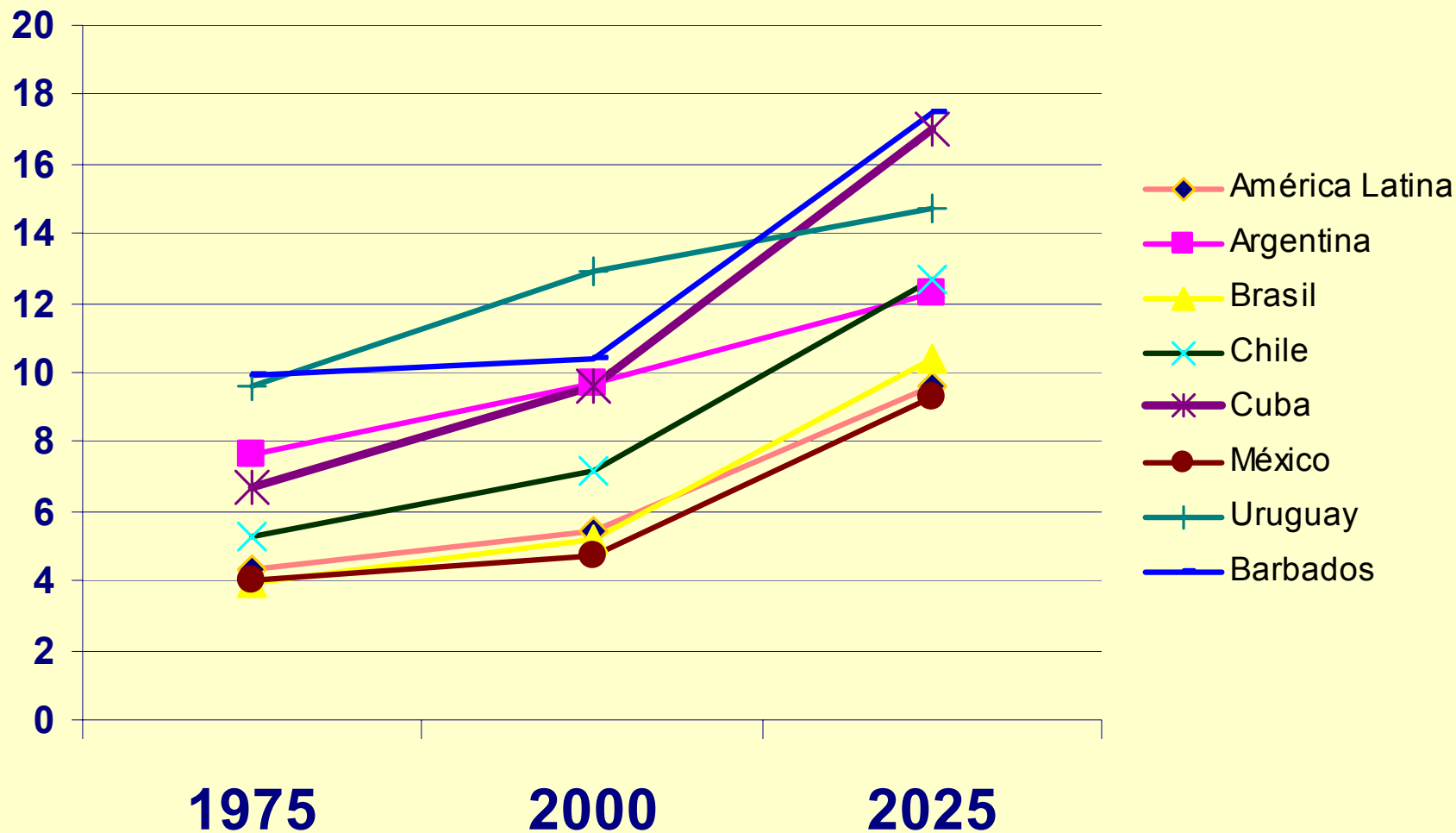
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Objectives

- ***Analysis of Disability Free Life Expectancy (regarding to ADL) of elderly people in 7 cities of Latin America and the Caribbean: the Great Buenos Aires (Argentina), Greater Bridgetown (Barbados), Urban Area of Sao Paulo (Brazil), the Great Santiago (Chile), Havana City (Cuba), Metropolitan Area of Mexico City and Montevideo City (Uruguay).***
- ***Analysis of the differential by sex. A comparison among the studied cities.***
- ***Analysis of sociodemographic and health factors associated to elderly people with limitations in ADL.***

Population of 65 years and over. Selected Years. (%)



Health, Well-Being and Aging in Latin America and the Caribbean Project.



**Pan American Health Organization (PAHO)
WISCONSIN University
CEPDE – ONE
CITED - MINSAP
CUBA**



SABE “Health, Well-Being and Aging in Latin America and the Caribbean”.

✓ Countries in advance stage of aging process

(Buenos Aires, Argentina; Bridgetown, Barbados; Havana, Cuba; Montevideo, Uruguay)

✓ Countries in moderate stage of aging process

Mexico D.F, Mexico; Sao Paulo, Brasil; Santiago, Chile

Possible limitation of the study:

There were not included cities in an initial stage of demographic transition.

SABE: description of the study

- ✓ **Transverse, simultaneous and rigorously comparable surveys, based on face to face interviews.**
- ✓ **Dwelling with people aged 60 or older were studied. Institutionalized persons were excluded from analysis.**

Sample Type

Probabilistic Sample Designs of the Type of multistage Stratified cluster Sampling, except Barbados, with a Stratified Random Sampling.

***Population of 60
years and over
studied in the
Region:
5 064 907***

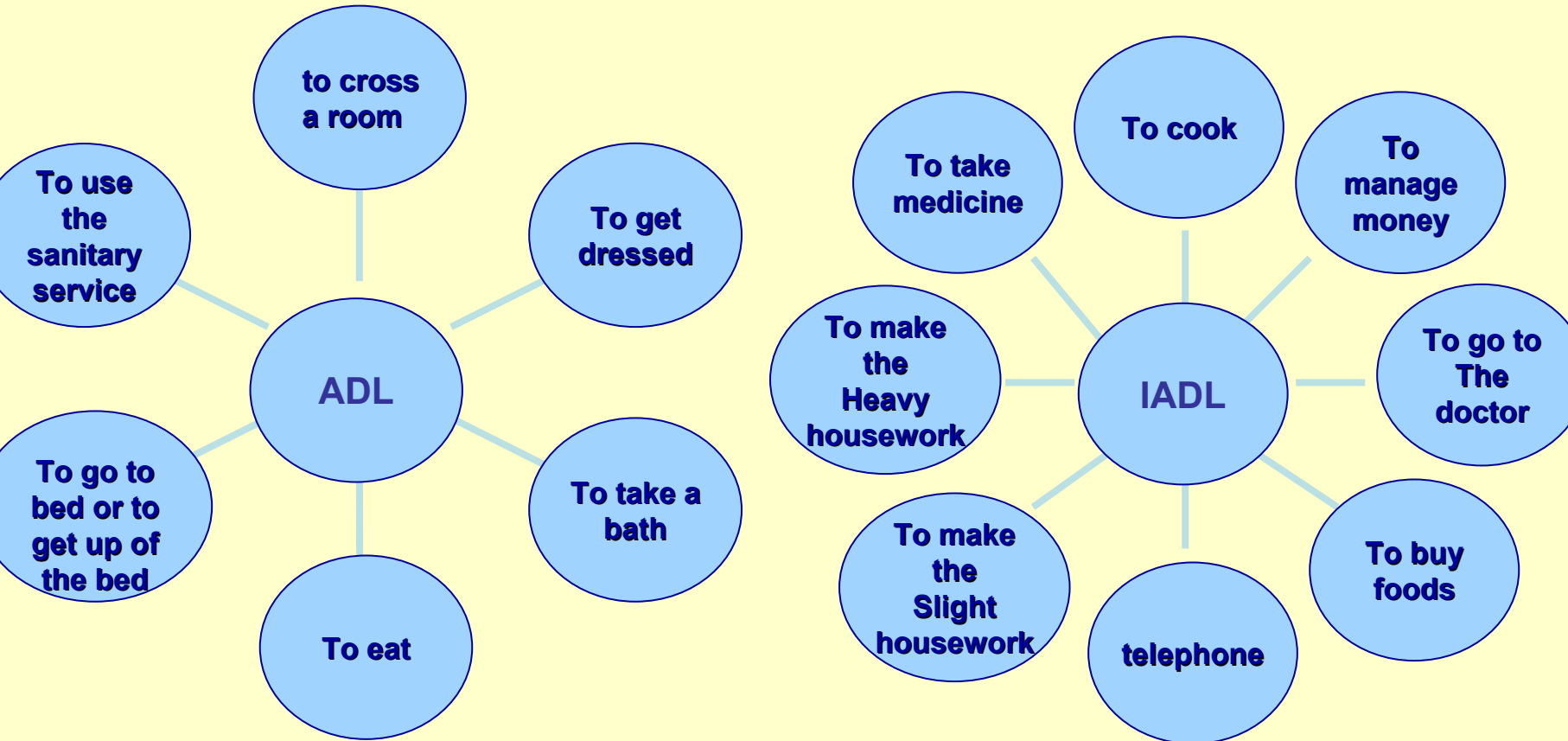
Selected housings:

32 322

***Elderly people
interviewed:***

10 891

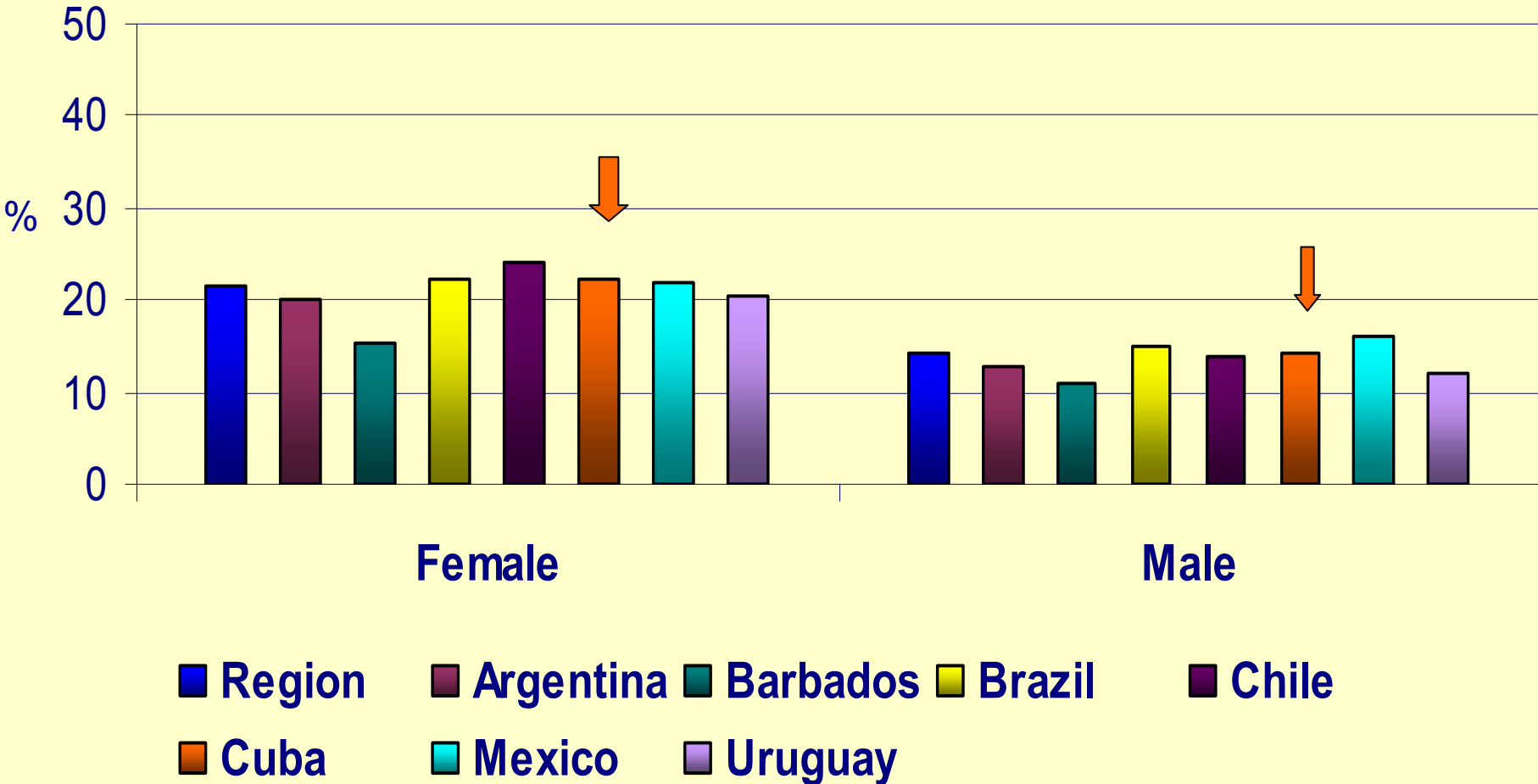
Functional Limitations



Activities of Daily Living (ADL6). Katz and Apkorm (1976).

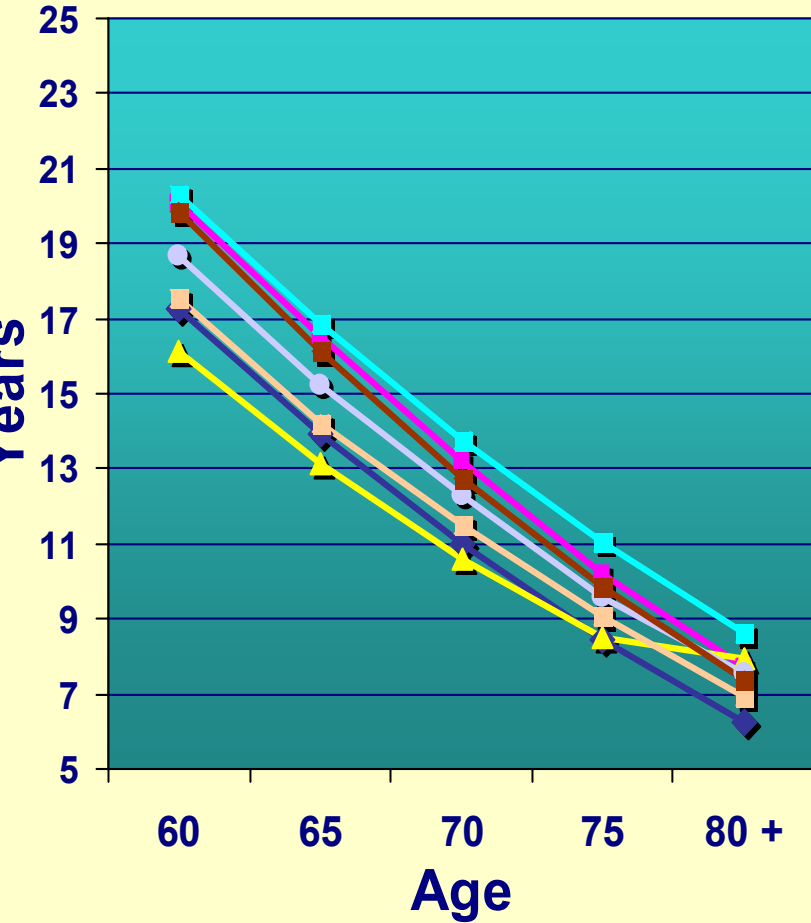
Instrumental Activities of Daily Living (IADL 8) Lawton and Brody (1969)

ADL Limitation Prevalence (60+ years). 2000 year.

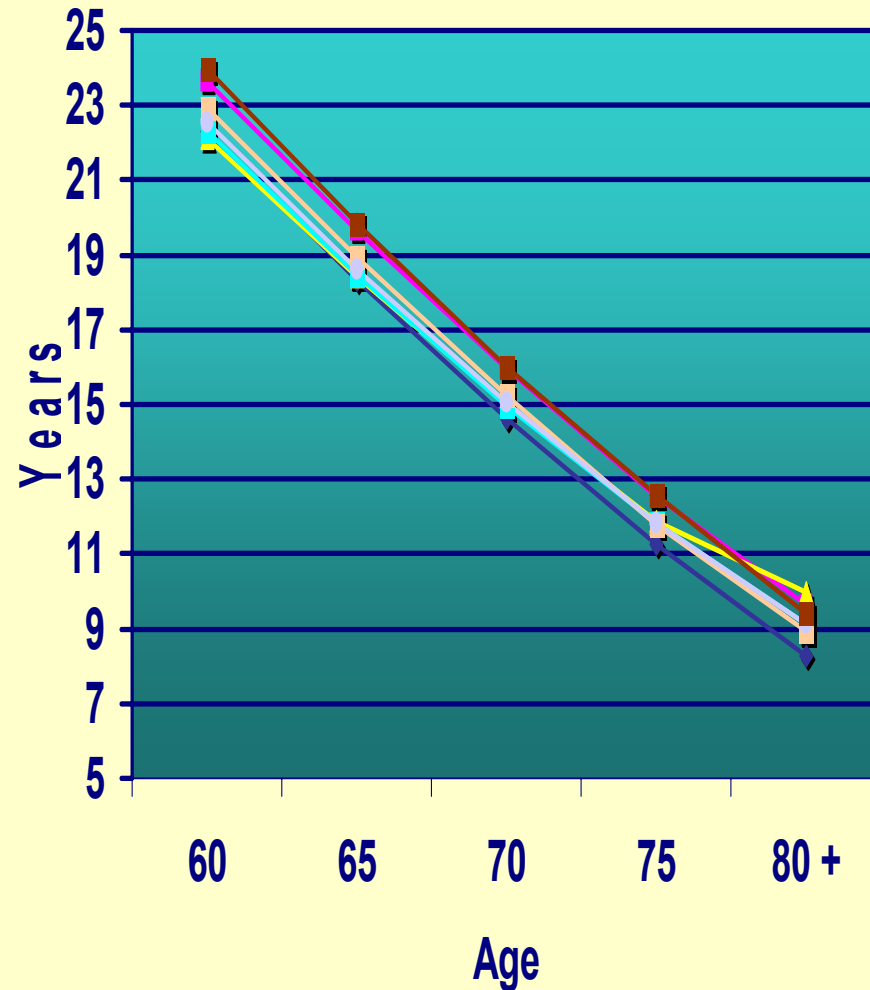


Prevalence has Statistically Significant Differences among cities by sex and age groups (Logistical Regression) and inside each city (Test Chi 2)

**Life Expectancy, Male.
2000 year.**



**Life Expectancy, Female.
2000 year.**



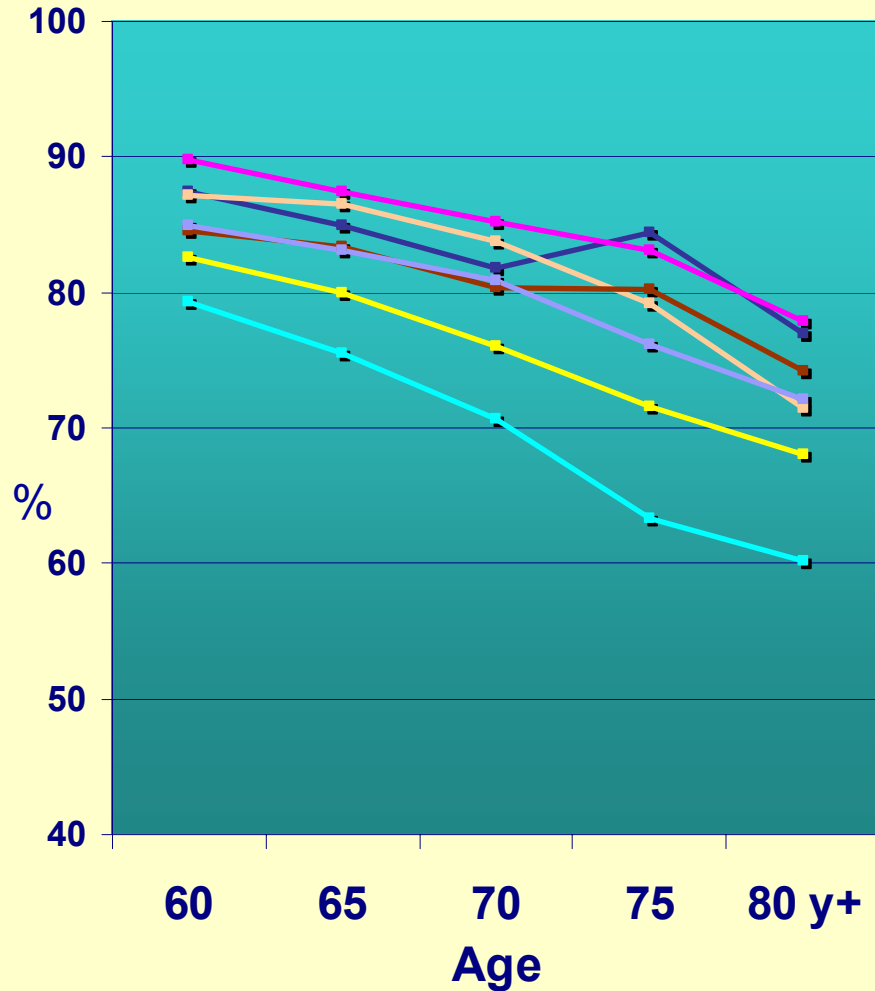
- ◆ Argentina
- ◆ Barbados
- ◆ Brasil.
- ◆ México
- ◆ Uruguay
- ◆ Cuba
- ◆ Chile.

Disability Free Life Expectancy

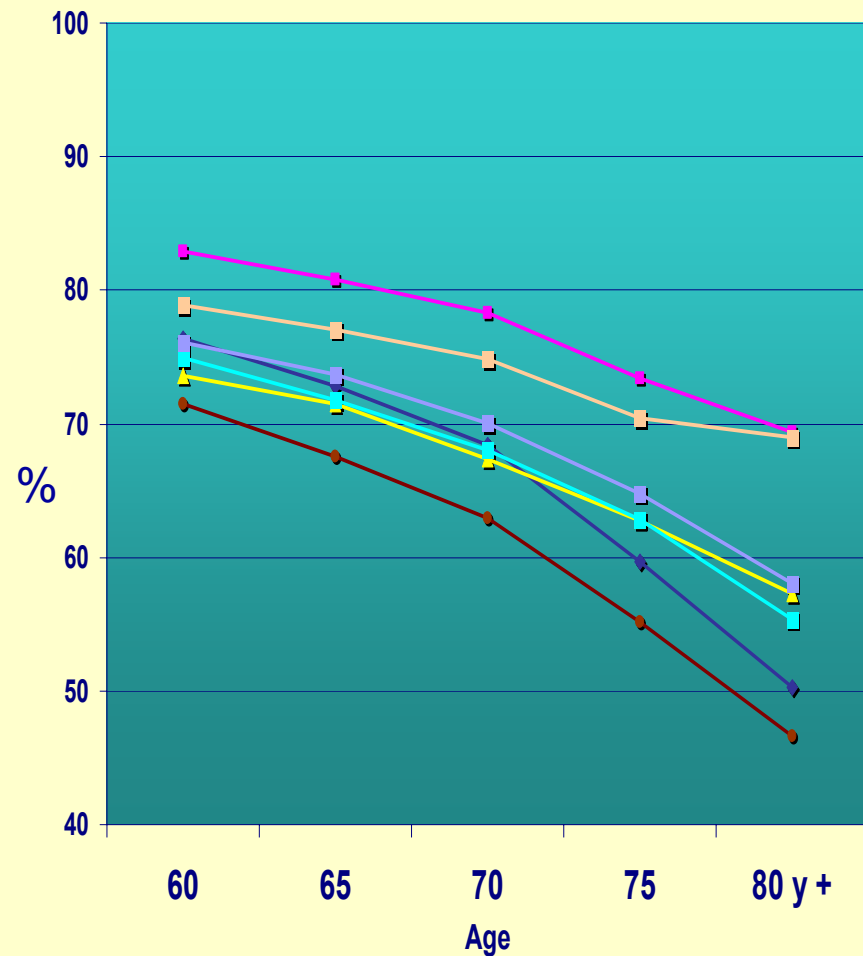
It determines how much one person will live to certain age without limitations or diseases.

$$e^0 = \text{EVLD} + \text{EVD}$$

**DFLE/ e_x %. (ADL) Male.
2000 year.**

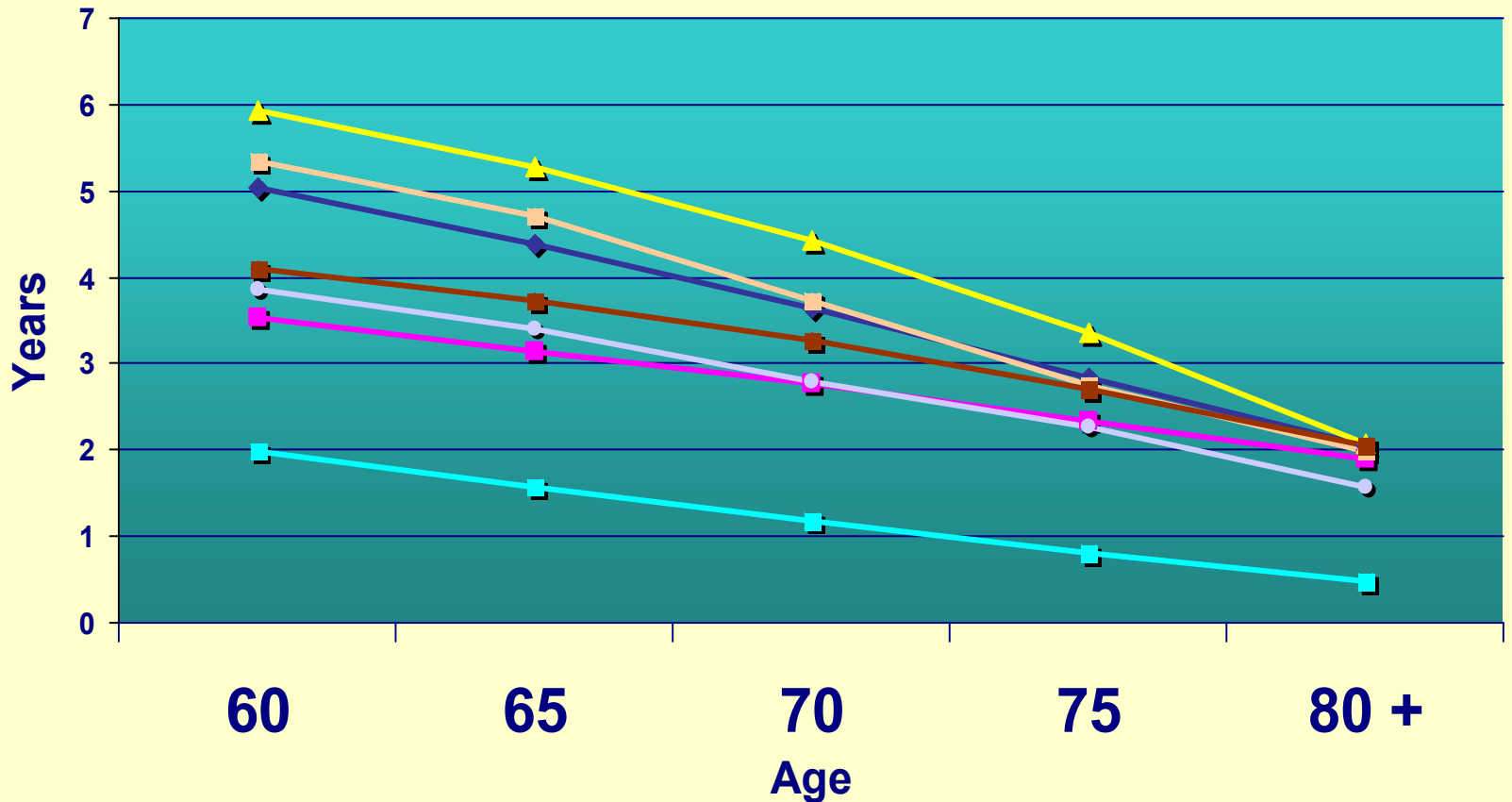


**DFLE/ e_x %. (ADL) Female.
2000 year.**



■ Argentina ■ Barbados ▲ Brazil ■ Mexico
■ Uruguay ■ Chile ■ Cuba

Differential by sex of Life Expectancy: Female compared with Male. 2000 year.



◆ Argentina

■ Barbados

▲ Brasil.

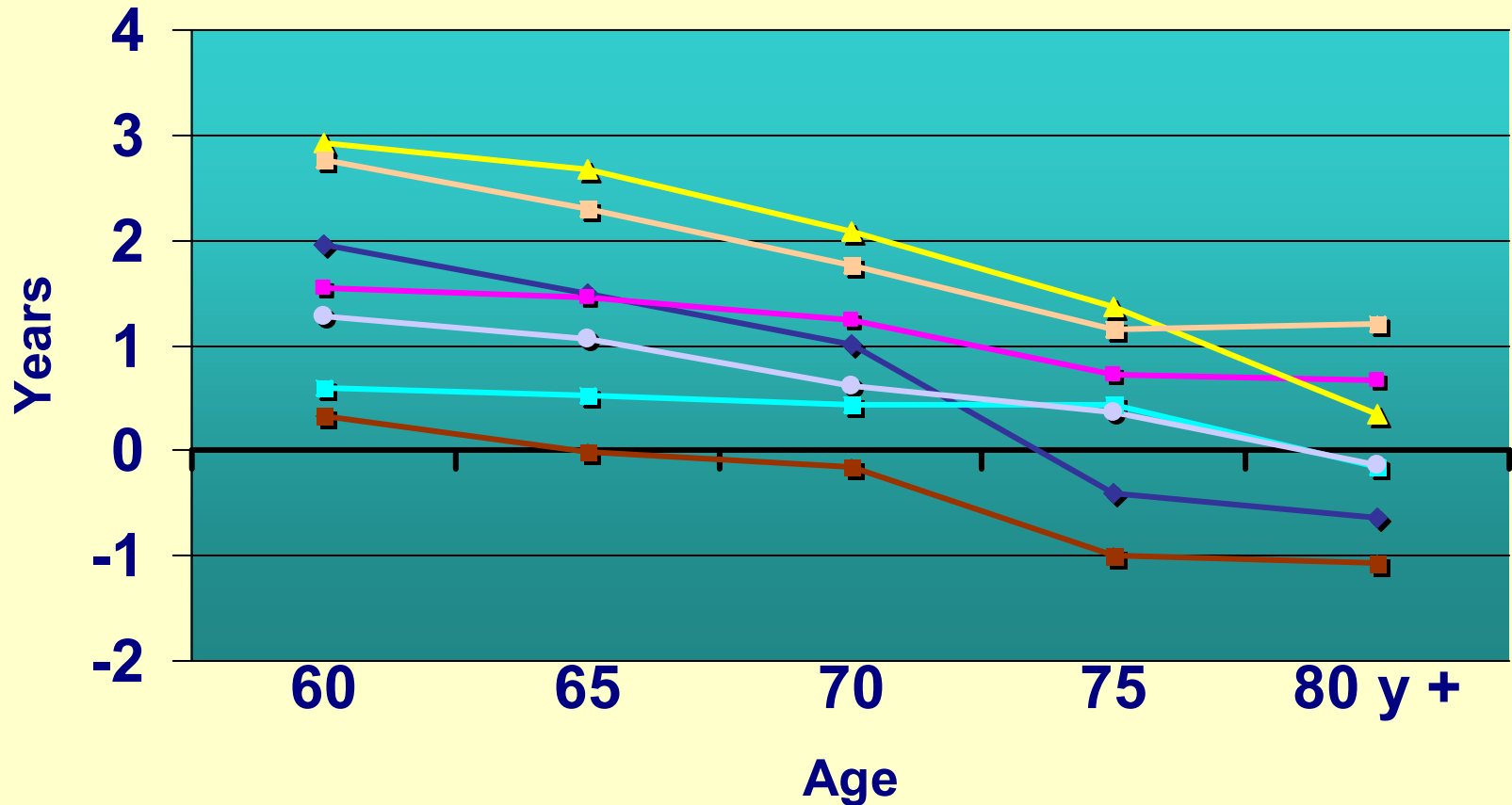
■ México

■ Uruguay

● Cuba

■ Chile.

Differential by sex of Disability Free Life Expectancy. (ADL). 2000 Year.



◆ Argentina ■ Barbados ▲ Brazil ■ Mexico
■ Uruguay ● Cuba ■ Chile.

Analysis of sociodemographic factors

Definitions of some indicators

- ✓ **Sex (female) ref: male.**
- ✓ **Age (75 and over) ref: 60-74**
- ✓ **Marital status (Not married/consensual union) ref: Married/consensual union**
- ✓ **Education (<=6 years) ref: >6 years**
- ✓ **Labor situation (Not Working) ref: Working**
- ✓ **Income (to have some income) ref: Not have some income**
- ✓ **Living Arrangement (living with someone) ref: live alone**
- ✓ **Nutrition (Percep of not well nutr) ref: Well nutr**
- ✓ **Cond of life (feeding) in childhood (Percep of well condic.) ref: Bad condic.**
- ✓ **Households index (to have own house, payed or paying) ref: Not have own house, payed or paying.**
- ✓ **Equipment Index (to have fridge and tv) ref: Not have fridge and tv.**

Sociodemographic characteristics of older people.

	Reg	Arg	Barb	Bra	Chi	Cub	Mex	Uru
Sex (Female)	60	62	59	59	60	59	56	62
Age (75 and over)	26	28	36	22	26	31	24	32
Not married/cons union	47	45	56	43	52	60	45	51
Education (<=6 years)	74	70	77	86	71	55	78	66
Not working	74	76	82	73	72	80	68	82
To have some income	80	80	89	87	78	94	68	90
Living with someone	85	80	78	87	88	89	90	81
Percep of not well nutr	12	5	5	8	12	27	20	7
Percep Cond of live in childhood (Bad)	19	11	17	20	22	23	29	11
Household Index (Good)	87	89	80	83	88	90	87	81
Equip Index (Good)	93	96	94	95	93	87	88	96

Source: Elaborated by the authors, SABE Study, OPS/OMS, año 2000.

Definitions of some health indicators

- ✓ **Chronic Diseases:** Hypertension, Diabetes Mellitus, Cancer, Lung Diseases, Cardio-Vascular Diseases, Brain-Vascular Diseases and Artrosis.
- ✓ **Mobility:** to present a limitation at least in one of the following activities, To go up floors, to bend over, to get up from their seat, to walk, to take weight, to put or to push objects, to be seated during two hours and to lift a coin.
- ✓ **Cognitive Impairment:** Mini Mental State Examination (MMSE) of Folstein y McHugh (reduced version), Pfeffer Functional Activities Questionnaire (PFAQ) of Pfeffer and Col.
- ✓ **Depression:** Geriatric Depression Scale of Yesavage and Col.

Sociodemographic characteristics of older people with limitations in ADL.

Indicator/ Countries	Reg	Arg	Bar	Bra	Chi	Cub	Mex	Uru
At least one ADL	19	17	14	19	20	19	19	17
Chronic Diseases	88	92	87	88	91	91	81	90
Cognitive Impairment	24	19	17	25	26	27	33	5
Depression	32	31	13	30	29	56	30	39
Mobility	99	98	93	99	99	99	100	100
Percep of health (reg. or bad)	77	66	70	76	86	91	84	64
At least one IADL	78	77	73	77	85	70	81	59

Source: Elaborated by the authors, SABE Study, OPS/OMS, 2000 year.

Association of older people with limitations in ADL with sociodemographic factors. Odds Ratio.

	Reg	Arg	Barb	Bra	Chi	Cub	Mex	Uru
Sex (Female)	1.2*	1.2	1.6*	1.3	1.5*	1.4*	0.9	1.6*
Age (75 and over)	2.4*	2.3*	2.4*	2.2*	2.4*	2.3*	2.8*	2.1*
Not married/cons union	1.3*	1.8*	1.4	0.9	1.2	1.0	1.3	1.0
Education (<=6 years)	1.7*	1.8*	1.3	1.4	1.6*	1.4*	1.8*	1.8*
Not Working	2.6*	3.7*	2.1*	2.5*	2.4*	2.3*	2.5*	2.0*
To have some income	1.1	1.2	1.3	1.1	1.9*	0.9	0.8	0.9
Living with someone	1.2*	1.2	1.3	1.2	1.9*	1.5	1.5	0.9
Percep of not well nutr	2.5*	8.7*	1.6	2.2*	3.3*	1.1	1.9*	2.6*
Percep Cond of live in childhood (Bad)	1.7*	2.9*	1.3	1.2	1.5*	1.4*	1.6*	1.6
Household Index (Good)	0.9	1.0	0.7*	0.9	0.6*	1.1	1.0	0.8
Equip Index (Good)	0.9	1.3	0.6*	0.6	0.8	1.1	0.8	1.1

* Significant level: P<0.05

Source: elaborated by the authors, SABE Study, OPS/OMS, 2000 year.

**Sociodemographic factors that has more influence
in present limitations in ADL in the Region.
Standarize coefficient of Logistic Regression Model.**

	Standarize coefficient
Not Working	0.42
Age (75 and over)	0.38
Nutrition (Bad)	0.29
Education (<=6 years)	0.24
Perc Cond of life in childhood (Bad)	0.20
Not married/cons union	0.13
Sex (Female)	0.10
Living with someone	0.08

Source: Elaborated by the authors, SABE Study, OPS/OMS, 2000 year.

Conclusions

- Men have higher percentages of ADL- DFLE as compared with women.
- The lowest DFLE percentage was found for Chile in women and for Mexico in men, and the highest for Barbados in both sex.
- The differential by sex of DFLE was in favor of women, with a tendency to decrease with age, it becomes in favor of men for the final ages and for some countries like Chile.
- These results have to be interpreted with caution because the institutionalization rates are higher in Barbados and Uruguay.

Conclusions (cont)

- **The older people in the region with limitations in ADL presented problems of mobility, chronic disease, difficulty in IADL, depression and cognitive impairment.**

- **There were found that among the sociodemographic factors studied, those who had a significant higher influence in the probability of present limitations in ADL, were: not working, age, bad nutrition, lower education and bad conditions of life in childhood.**

These results show the conditions of the aging process in our countries (LAC), these could be considered the baseline in the elaboration of strategies and policies, to face in a satisfactory way this aging.

Thank

You