#### ORIGINAL ARTICLE / ARTIGO ORIGINAL

# Socioeconomic profile of the elderly in Florianópolis: Comparative analysis studies *Perfil do Idoso 2002* and *EpiFloripa Idoso 2009*

Perfil socioeconômico dos idosos de Florianópolis: Análise comparativa dos estudos Perfil do Idoso 2002 e EpiFloripa Idoso 2009

Danielle Ledur Antes<sup>1</sup>, Daniela Furuzawa Ribeiro<sup>11</sup>, Ione Jayce Ceola Schneider<sup>1</sup>, Tânia Rosane Bertoldo Benedetti<sup>111</sup>, Eleonora d'Orsi<sup>1</sup>

**ABSTRACT:** Objective: The aim of this study is to compare the socioeconomic profile of the population aged 60 or older living in Florianópolis in 2002 and 2009. *Methods:* Data were obtained through the studies *Perfil do Idoso* 2002 and *EpiFloripa Idoso* 2009 based on household surveys. *Results:* There was a predominance of aged 60 to 69 years old, married and living with spouse and children. There was a significant improvement in the level of education and, on the economic aspects, retirement remains the main source of income, increasing the number of families receiving no more than three minimum wages and reducing those with monthly income above 10 minimum wages. The number of older adults who considers their current financial situation better than age 50 increased as the proportion of subjects with fair/poor self-perception health. It was also highlighted greater purchasing private health insurance. *Conclusion:* Comparison of the two studies presented here can support the actions of managers in order to bring effective results to the population.

Keywords: Aged. Demographic aging. Health of the elderly. Socioeconomic factors. Health profile. Public health.

Conflict of interests: nothing to declare – Financial support: National Council for Scientific and Technological Development (CNPq), Process n. 520824/1997-0, SU and 569834/2008-2, and Ministry of Health (Process n. 4345/01; FAPEU 134-2001).

Programa de Pós-graduação em Saúde Coletiva da Universidade Federal de Santa Catarina — Florianópolis (SC), Brasil.

Graduação em Medicina, Universidade Federal de Santa Catarina — Florianópolis (SC), Brasil.

<sup>&</sup>quot;Programa de Pós-graduação em Educação Física da Universidade Federal de Santa Catarina – Florianópolis (SC) Brasil.

Corresponding author: Danielle Ledur Antes. Núcleo de Cineantropometria e Desempenho Humano da Universidade Federal de Santa Catarina. Centro de Desportos – Campus Universitário, sala 42, Trindade, CEP: 88040-900, Florianópolis, SC, Brazil. E-mail: danielleantes@gmail.com

**RESUMO:** Objetivo: Descrever o perfil socioeconômico e autopercepção de saúde da população com 60 anos ou mais residente em Florianópolis nos anos de 2002 e 2009. **Métodos:** Os dados foram extraídos com base nos inquéritos domiciliares *Perfil do Idoso 2002* e *EpiFloripa Idoso 2009.* **Resultados:** Verificou-se o predomínio dos idosos de 60 a 69 anos, casados e que residem com o cônjuge e filhos. Houve melhora significativa do padrão de escolaridade e, quanto à questão econômica, a aposentadoria continua a principal fonte de renda, com aumento do número de famílias recebendo, no máximo, três salários mínimos e redução das que tinham renda mensal acima de 10 salários mínimos. O número de idosos que consideram sua situação financeira atual melhor do que aos 50 anos aumentou, assim como a proporção de sujeitos com percepção de saúde regular/ruim. Destacou-se, ainda, maior aquisição de planos de saúde particulares. **Conclusão:** A comparação dos dois estudos aqui apresentados pode subsidiar as ações dos gestores a fim de trazer resultados efetivos para a população.

*Palavras-chave:* Idoso. Envelhecimento da população. Saúde do idoso. Fatores socioeconômicos. Perfil de saúde. Saúde pública.

## INTRODUCTION

The increase in the elderly population is nowadays a worldwide phenomenon¹. In Brazil, population ageing is going to be significantly faster than that of developed countries in the past century. The elderly population will practically triplicate in the next four decades, from 20 million in 2010 to roughly 65 million in 2050. This change in the Brazilian's age structure will add to the pressure on public pension and health care systems² and pose changes in the epidemiological profile of the country³, which will shift from a typical mortality profile of a young population to one featuring complex and more expensive diseases that are common among ageing people⁴.⁵.

The growing elderly population and its consequences is one of the main subjects in Public Health, especially because of social implications and the impact on health policies. Studies showing the changes in the demography of this population subsidize public organizations, allowing different sectors dealing with this age group to adapt their policies, programs, strategies and action with view to the current reality, laws and rules<sup>1,6</sup>.

Under this scope, epidemiological population studies are useful, because they allow outlining the multidimensional profile of people and provide a detailed knowledge of the investigated regions' inhabitants<sup>6</sup>.

In view of the above, our study aimed to draw the socioeconomic profile of the population aging 60 or more and living in Florianópolis (SC, Brazil) based on two epidemiological surveys: *Perfil do Idoso* (2002) and *EpiFloripa Idoso* (2009/2010).

#### **METHODS**

This paper brings a description of two observational cross-sectional studies based on residences and residents: *Perfil do Idoso* and *EpiFloripa Idoso*.

Perfil do Idoso\* was carried out in Florianópolis city from August to December 2002, and the purpose was to collect specific data on the elderly population of the city in order to characterize their life and health conditions. The study was descriptive, cross-sectional and of prevalence, with sampling by the 2000 IBGE census information and by gender, according to the elderly definition established by ONU in 1982 for developing countries. To define the sample, we adopted the sampling error p = 0.05, weighted by description, according to the technical guidance by IBGE/SC. The minimum number of interviewees was established in 797 — divided as 398 males and 399 females. When opting to study all census sectors, the sample size would be 875 aged people — divided as 437 males and 438 females.

Data collection was made by university graduates and senior researchers through random and systematic selection of interviewees, being interviewed an aged for each census sector and another after the half part of this sector. To assure data veracity, another team of researchers collected anthropometric data on the following week and verified the conduction of the interviews.

In all census strata, a male and a female elderly were interviewed. If the residence held more than one aged, one of them would be chosen randomly. In case they refused to participate in the study, a document would be signed.

Exclusion criteria were: long-stay hospitalization, being in geriatric institutions or hospitals and similar institutes.

Information was collected by the use of a multidimensional questionnaire named Brazil Old Age Schedule (BOAS), proposed by Veras<sup>7</sup> and reviewed by the team of researches of *Universidade Aberta da Terceira Idade* (UnATI) from *Universidade do Estado do Rio de* 

<sup>&</sup>lt;sup>\*</sup> Tânia RBB et al. *Perfil do idoso do município de Florianópolis*, SC: relatório final da pesquisa. Florianópolis: UFSC; 2004. 88p. Sponsored by the Health Ministry (4345/01; FAPEU 134-2001) and CNPq (520824/1997-0, SU).

*Janeiro* (UERJ)<sup>8</sup>. The questionnaire was composed of 9 sections, totalizing 133 questions on the following aspects: general information, physical health, use of healthcare and dental services, daily activities, social and economic resources; mental health and needs or problems for the elderly.

The Project *Perfil do Idoso* was approved by the Ethics Committee of UFSC, protocol 051/2001.

In 2009, the population-based, cross-sectional and epidemiological study "Condições de Saúde da população idosa do município de Florianópolis, SC: estudo de base populacional", EpiFloripa Idoso\*\*, was carried out aiming at investigating the aspects related to the elderly health (60 years or more) living in the urban area of Florianópolis city. Calculation of sample size was made using a formula for incidence-prevalence studies multiplied by two (value relating to the design effect of two-phase conglomerate sample) added by 20% for predicted losses and 15% for confusion factors in association studies. The software Epi-Info 6.04 was used for the analysis in the following data: sample size = 44,460; unknown results prevalence (50%), 95% confidence interval (95%CI), sampling error = 4 percentage points; resulting in a sample with 1,599 individuals.

Sample selection was made by conglomerates in two phases. In the first one, all 420 urban census sectors in the city were organized in ascending order of mean family income, being randomly chosen 80 of these sectors (8 sectors to each income decile).

The second phase units were the residences. A phase of updating in the number of residences of each sector (enrollment) was made necessary, for the most recent census data had been collected in 2000. In order to do so, the study supervisors had to visit all census sectors selected and count all residences with residents, in compliance with the rules established by IBGE.

According to IBGE°, the mean number of residents per residence is 3.1 people. As the age group of interest for our research corresponded to roughly 11% of the general population, we had 102 people by census sector on average or 1 aged person for each 3 residences. Therefore, the establishment was that around 60 residences per census sector should be visited in order to find 20 aged people. These residences were randomly and systematically chosen, and all aged people in the selected houses were interviewed.

The participants who were not found in their residences after four attempts of visit (at least one at night and one in the weekend), as well as those that could not answer the interview by reason of travel or hospitalization, were considered sample loss. "Refusals" were participants who refused to answer the questionnaire for personal reasons.

<sup>\*\*</sup>D'Orsi E, coord. Condições de saúde da população idosa do município de Florianópolis-SC: estudo de base populacional. (CNPq, 569834/2008-2).

Data collection was made using a standard questionnaire previously tested and applied as face-to-face interviews, aided by the *Personal Digital Assistant* (PDA).

Field study was performed from September 2009 to June 2010. The questionnaire was applied by female researchers with high-school level of study and previously trained about the research procedures. The pilot study included 99 aged people living in non-sampled regions. The field study was supervised by post-graduation students.

Researchers performed a weekly verification of data consistency for quality control by the use of a summed up questionnaire, on the phone, in 10% of the interviews, with random selection.

The project *EpiFloripa Idoso* was approved by the Ethics Committee of UFSC (protocol 352/2008). In both investigations, *Perfil Idoso* and *EpiFloripa Idoso*, participants signed and informed consent form in order to be interviewed. The authors of this paper declare having no conflict of interest.

Only some of the variables assessed in *Perfil Idoso* and *EpiFloripa Idoso* were selected for our study. The purpose was to draw the social and economic profile of the population aging 60 or more in Florianópolis, so the variables chosen were: age group (60-69 years, 70-79 years, 80 years or more), marital status (married/with a partner, single, divorced/separated, and widow/widower), school level (none, 1-4 years, 5-8 years, 9-11 years, 12 years or more), living alone (yes or no), number of residents in a house (1, 2, 3, 4, 5 or more).

Regarding income, the variables investigated were: paid work (yes or no), other sources of income (yes or no), current economic situation compared to when they were at the age of 50 (better, the same, worse) and monthly family income in minimum wage (MW) values, according to values charged in the year of the investigation ( $\leq 1$  SM, > 1-3 SM, > 3-5 SM, > 5-10 SM, > 10-40 SM, and > 40 SM). In 2002, the minimum wage in the State of Santa Catarina was R\$ 200.00, but in 2009 it was R\$ 465.00. The choice of mean family income as indicator of social and economic condition is justified by the importance of income for social ascension in Brazil<sup>5</sup>.

In the absence or insufficiency of data regarding good quality education, adequate health assistance, residence and means of transportation, income would be assumed as primordial for the acquisition of goods and services and for the satisfaction of basic needs<sup>5</sup>.

Health variables used in this study were: self-perceived health (very good, good, regular, bad and very bad), current health status compared to other people in the same age (worse, equal and better), and use of private healthcare insurance (yes or no).

Data were analyzed by descriptive statistics. Numerical variables were categorized in a way that both categorical and numerical could be assessed according to absolute and relative frequencies.

Data from the studies *Perfil Idoso* and *EpiFloripa Idoso* were described and compared using 95% confidence interval. Analysis was performed in the *software* StataSE 9.0, considering the design effect and sample weights using the command "svy".

#### RESULTS

The study *Perfil do Idoso* was composed of interviews with 875 ageing people (437 males and 438 females) by previous sample definition, as aforementioned. Response rate was 97.8%. The study *EpiFloripa Idoso* selected 1,911 ageing people from randomly chosen residences, so 1,705 ageing people were effectively interviewed, with answering rate of 89.2%. In 2009, a predominance of females (64%) to the detriment of males (36%) was observed in the survey. However, these data cannot be compared to those from *Perfil do Idoso*, because in the latter the sample was made proportional as to the number of males and females.

In both studies, most of the subjects aged 60-69 years. The elderly population of Florianópolis is therefore mainly composed by mature people from "younger" age groups (Table 1).

The most mentioned marital status in both samples was "married", followed by "single" and "divorced/separated" (Table 1).

Interpreting the data from the surveys, there was a significant improvement in educational profile, with a drop in the number of individuals with no schooling and individuals who went to school for 1-4 years. In parallel, there was also an increase in the proportion of ageing people who had gone to school for 5-8 years and for 12 years (Table 1).

As to household patterns, less than 20% of the interviewees of both studies referred living alone, which means there was a decrease in the number of houses with two people (Table 2).

The mostly cited income sources were similar in both studies. The number of ageing people with paid employment dropped, and retirement remained as the main income in this population.

Although pension still contributes with the income of a considerable portion of the ageing population, the number of people receiving it decreased significantly. A small parcel of the sample declared, in both studies, having other types of income, so there was also a reduction in ageing people receiving incomes other than pensions or retirement. Retirement pension is, therefore, the main means of income for many ageing people (Table 3).

There was also a significant increase in the proportion of aged people reporting improvement in their economic situation in comparison to their situation at the age

Table 1. Sociodemographic profile of the elderly (60 years or older) living in Florianópolis according to the studies *Perfil do Idoso* and *EpiFloripa Idosos*. Florianópolis, 2002 and 2009.

Variables	Perfil do Idoso†			EpiFloripa Idoso‡					
	n	% (95%CI)	Standard error	n	% (95%CI)	Standard error			
Gender									
Males	437	49.9 (46.8 – 52.9)	1.5	616	37.5 (34.7 – 40.4)	1.4			
Females	438	50.1 (47.1 – 53.2)	1.5	1,089	62.5 (59.6 – 65.3)	1.4			
Total	875	100.0		1,705	100.0				
Age group									
60 – 69 years	403	46.9 (42.9 – 50.9)	2.0	854	51.0 (48.2 – 53.9)	1.4			
70 – 79 years	323	36.4 (32.7 – 40.2)	1.9	612	35.3 (32.4 – 38.1)	1.4			
80 or older	149	16.7 (14.0 – 19.4)	1.4	239	13.7 (11.2 – 16.1)	1.2			
Total	875	100.0		1,705	100.0				
Marital status									
Married/living with partner	536	61.9 (58.6 – 65.2)	1.7	993	58.4 (54.9 – 61.9)	1.8			
Single	30	3.0 (1.9 – 4.2)	0.6	99	5.4 (3.9 – 7.0)	0.8			
Divorced/ separated	58	6.5 (4.7 – 8.3)	0.9	132	8.3 (6.7 – 9.9)	0.8			
Widow(er)	251	28.6 (25.4 – 31.7)	1.6	481	27.9 (24.9 – 30.8)	1.5			
Total	875	100.0		1,705	100.0				
School level	School level								
None	176	20.2 (17.2 – 23.2)	1.5	161	8.0 (5.8 – 10.2)	1.1			
1 – 4 years	373	44.0 (40.2 – 47.9)	1.9	584	32.6 (27.9 – 37.3)	2.4			
5 – 8 years	102	10.6 (8.4 – 12.8)	1.1	321	18.5 (15.9 – 21.1)	1.3			
9 – 11 years	120	13.2 (10.7 – 15.7)	1.3	234	15.9 (12.4 – 19.5)	1.8			
12 or more years	104	12.0 (9.4 – 14.5)	1.3	394	25.0 (20.5 – 30.0)	2.3			
Total	875	100.0		1,694	100.0				

†Source: Study Perfil do Idoso, 2002. †Source: Study EpiFloripa Idoso, 2009.

Table 2. Composition of the homes of the elderly (60 years or older) regarding family structure and number of residents. Florianópolis, 2002 and 2009.

	D (1 1 1 1 1			E IEL I LL A				
	Perfil do Idoso†			EpiFloripa Idoso‡				
Variables	n	% (95%CI)	Standard error	n	% (95%CI)	Standard error		
Living alone								
Yes	116	12.9 (10.5 – 15.3)	1.2	270	16.8 (13.9 – 19.6)	1.4		
No	759	87.1 (84.7 – 89.5)	1.2	1,433	83.2 (80.4 – 86.1)	1.4		
Total	875	100.0		1,705	100.0			
Residents of a house								
1	116	12.9 (10.5 – 15.3)	1.2	271	16.7 (13.8 – 19.5)	1.4		
2	261	30.0 (26.9 – 33.2)	1.6	302	19.3 (13.7 – 24.8)	2.8		
3	202	23.8 (20.7 – 26.8)	1.6	525	30.2 (25.8 – 34.5)	2.2		
4	137	14.9 (12.4 – 17.4)	1.3	269	14.8 (12.6 – 17.0)	1.1		
5 or more	159	18.4 (15.5 – 21.3)	1.5	338	19.0 (16.0 – 22.1)	1.5		
Total	875	100.0		1,705	100.0			

†Source: Study Perfil do Idoso, 2002. †Source: Study EpiFloripa Idoso, 2009.

Table 3. Composition of income of the older adults (60 years or older), the very opinion about the economic situation and family income. Florianópolis, 2002 and 2009.

	Perfil do Idoso†				EpiFloripa Idoso‡			
Variables	n	% (95%CI)	Standard error	n	% (95%CI)	Standard error		
Paid employment								
Yes	712	81.2 (78.3 – 84.1)	1.5	1,476	86.6 (84.4 – 88.9)	1.1		
No	160	18.8 (15.9 – 21.7)	1.5	229	13.4 (11.1 – 15.7)	1.1		
Total	872	100.0		1,705	100.0			
Receiving retirement pension								
Yes	260	29.0 (26.0 – 32.1)	1.6	326	21.3 (18.5 – 24.2)	1.4		
No	615	71.0 (67.9 – 74.0)	1.6	1,169	78.7 (75.8 – 81.5)	1.4		
Total	875	100.0		1,705	100.0			
Receiving pension						'		
Yes	508	58.7 (55.5 – 61.8)	1.6	1,283	71.8 (69.5 – 74.1)	1.2		
No	367	41.3 (38.2 – 44.5)	1.6	422	28.2 (25.9 – 30.5)	1.2		
Total	875	100.0		1,705	100.0			
Other source of income		1						
Yes	645	73.7 (70.8 – 76.6)	1.5	1,251	83.6 (80.9 – 86.2)	1.3		
No	230	26.3 (23.4 – 29.2)	1.5	246	16.4 (13.8 – 19.0)	1.3		
Total	875	100.0		1,497	100.0			
Current economic situation compa	red to t	hat of 50 years earli	er			,		
Better now	352	39.5 (35.8 – 43.3)	1.9	791	48.7 (44.5 – 52.9)	2.1		
The same	271	30.5 (27.5 – 33.6)	1.6	469	25.9 (22.7 – 29.2)	1.6		
Worse now	250	30.0 (26.5 – 33.4)	1.8	426	25.4 (22.4 – 28.3)	1.5		
Total	873	100.0		1,686	100.0			
Monthly family income		'						
≤ 1 MW*	6	0.7 (0.1 – 1.3)	0.3	204	12.0 (10.4 – 13.5)	0.8		
> 1 a 3 MW	159	18.7 (16.1 – 21.4)	1.3	434	25.5 (23.4 – 27.5)	1.0		
> 3 a 5 MW	149	17.6 (15.0 – 20.1)	1.3	314	18.4 (16.6 – 20.2)	0.9		
> 5 a 10 MW	179	21.1 (18.3 – 23.8)	1.4	383	22.8 (20.7 – 24.7)	1.0		
> 10 a 40 MW	272	32.1 (28.9 – 32.2)	1.5	342	20.0 (18.1 – 21.9)	0.9		
> 40 MW	83	9.8 (7.8 – 11.8)	1	23	1.3 (0.8 – 1.9)	0.3		
Total	848	100.0		1,705	100.0			

<sup>\*</sup>SM (Minimum wage) in 2002: R\$ 200.00 and 2009: R\$ 465.00. †Source: Study Perfil do Idoso, 2002. †Source: Study EpiFloripa Idoso, 2009.

of 50. There was an increase in the number of families receiving up to one minimum wage and 1-3 minimum wages, as well as a decrease in those with income of more than 10 minimum wages (Table 3).

In the study carried out in 2002, most of the sample considered their health good, but there was a significant drop in the number of subjects with very good or good self-perceived health, and a rise in the proportion of those perceiving their own health as regular or bad. Nevertheless, the percentage of subjects considering their health better than that of other people at the same age increased significantly (Table 4).

Table 4. Self-perceived health and comparison to other older adults (60 years or older), presence of private health insurance. Florianópolis, 2002 and 2009.

Variables	Perfil do Idoso†			EpiFloripa Idoso‡				
	n	% (95%CI)	Standard error	n	% (95%CI)	Standard error		
Self-perceived health								
Very good	119	14.8 (12.0 – 17.5)	1.4	159	9.8 (8.1 – 11.5)	0.9		
Good	495	56.9 (53.0 – 60.7)	2.0	701	43.5 (40.5 – 46.5)	1.5		
Regular or bad	234	25.7 (22.4 – 29.0)	1.7	779	44.5 (41.3 – 47.8)	1.5		
Very bad	26	2.6 (1.4 – 3.9)	0.6	42	2.2 (1.4 – 2.9)	1.6		
Total	874	100.0		1,681	100.0	0.4		
Self-perceived health compared to that of others at the same age								
Worse	94	10.1 (8.0 – 12.3)	1.1	138	7.7 (5.8 – 9.5)	0.9		
Same	359	42.7 (38.8 – 46.5)	2.0	477	29.5 (26.3 – 32.8)	1.6		
Better	409	47.2 (43.4 – 51.0)	1.9	1,044	62.8 (59.8 – 65.8)	1.5		
Total	862	100.0		1,659	100.0			
Private health insurance								
Yes	381	44.6 (40.9 – 48.3)	1.9	1,087	65.8 (60.5 – 71.2)	2.7		
No	494	55.4 (51.7 – 59.1)	1.9	618	34.2 (28.8 – 39.6)	2.7		
Total	875	100.0		1,705	100.0			

†Source: Study Perfil do Idoso, 2002. †Source: Study EpiFloripa Idoso, 2009.

Finally, the study *Perfil do Idoso* showed that approximately 45% of the subjects had a private healthcare insurance. However, in 2009, the study *EpiFloripa Idoso* showed a considerable increase in this proportion, reaching 66%.

#### DISCUSSION

The comparison between the surveys *Perfil do Idoso* and *EpiFloripa Idoso* showed an increase in school levels and in the acquisition of private healthcare insurance in Florianópolis in the seven-year period between them.

The increased economic self-perception by subjects as better than when they were at the age of 50 may be related to these changes observed in the elderly profile. The health self-perception, on the other hand, shift from good to regular or bad, even though most subjects considered their health status better than that of other individuals at the same age.

EpiFloripa Idoso showed predominance of females among the elderly population in Florianópolis, so the comparison with the study of 2002 was not possible in view of the sampling method used in the studies. Analyzing other surveys, we note that this female predominance is a tendency<sup>1,5</sup>, and can be explained by the differences in life expectancy between genders, a worldwide phenomenon that is evident in Brazil. From 1999 to 2003, life expectancy from 60 years old on became longer for all age groups and for both, men and women; however the life expectancy for females surpasses males' in 8 years on average, which could explain the higher number of aged women to the detriment of aged men<sup>1,5</sup>.

Higher mortality rates among men in the first mature ages also explain the smaller number of men composing the elderly group. We must point out that women look for sexual/reproductive care more often, so they end up developing a more accurate health status compared to men<sup>10</sup>. It is important to note that, although women live more than men, they also present higher morbidity rates. Thus, in the upcoming decades, women's health needs tend to gain more attention in health services<sup>11</sup>.

As to other social and demographic features, we emphasize the improvement in school level among the elderly in the city, data shown to be better than those presented by the PNAD in 2009¹, when 50.2% of the elderly had less than 4 years of study and only 17.4% had 9 or more years of study. The same pattern is seen when it comes to mean school years among the elderly of the city, which is also superior to that of the national mean and to those of other capitals in Brazil. In 2000, the national mean schooling for the elderly was 3.4 years of study, but in Florianópolis the mean was 7.2 years¹.

In Brazil, the analysis of family arrangements showed that the elderly homes are composed by the model "couple and sons"<sup>2</sup>. According to studies, this is a remarkable tendency when the responsible for the house is a male aged<sup>6</sup>. In homes where a female aged is the family chief, the family model without a spouse is very common, because in such cases these are probably homes commanded by widows<sup>1,5</sup>.

The high proportion of people living alone is characteristic of the major urban centers due to factors such as the increase in life expectancy, the verticalization of cities, the downsizing of houses, and the rise in separations and divorces, which seem to contribute a lot with this numbers<sup>12</sup>. The studies *Perfil do Idoso* and *EpiFloripa Idoso* pointed that Florianópolis has followed an opposite model, for there was a reduction in homes with two residents. In São Paulo, the study Epidoso<sup>13</sup> showed that aged people who lived with their spouses and/or sons were younger and had better economic conditions. On the other hand, the aged who lived alone were, in most cases, widows in low social and economic conditions.

The fact that Florianópolis rows against the current may be explained by the findings of the study Epidoso<sup>13</sup>, for the city holds an ageing population aging 60 - 69 years (young elderly) and in better educational, social and economic situation compared to the country's mean.

To the economic extent, the increase in the aged people with family income of 1 minimum wage and 1-3 minimum wages, as well as the drop in those presenting more than 10 minimum wages, may be explained by the fact that most of the elderly have retirement pension as their main income source, and the value of such pension did not accompany the minimum wage monetary readjustments in the period.

However, the elderly self-perception of their current economic situation as compared to when they were 50 years old has changed, as the number of subjects considering the actual situation better raised, which could be explained by their family arrangements with less people in the house, following their son's emancipation and their parents ageing. In this manner, extra expenditure in the monthly budget drop, while the supply of consumer goods and the buying conditions improve.

The study *Perfil do Idoso* showed, when analyzing the health status as regarding private healthcare insurance, that in 2002 the proportion of aged people covered by these private plans was already superior to the mean national coverage, estimated in 36.7% for cities with 200,000 inhabitants or more<sup>14</sup>.

*EpiFloripa*, on its turn, pointed an expressive rise in the number of subjects covered by a private healthcare insurance. Although the income values did not increase in the seven years between studies, this rise may be explained by the greater offer and availability of healthcare plans in the market, which resulted in a drop in their prices and, therefore, more contracts signed.

Previous studies<sup>15,16</sup> showed that in small and medium cities (with less than 80,000 inhabitants), the participation of private healthcare plans is smaller than that of the public health system, while in cities with more than 80,000 inhabitants — Florianópolis included — , the offer of healthcare plans has been expanding since 1999. In the two last decades, a process of consolidation of urban metropolitan and non-metropolitan conglomerates was started after the economic restructuration of the country<sup>15</sup>. This could explain why not only capitals, but also medium and big cities (with 50,001 to 200,000 inhabitants) have higher rates of healthcare plans in relation to other countryside cities with smaller populations<sup>14</sup>.

In 2002, the elderly population of Florianópolis reported being satisfied with their health status. However, in 2009, there was an increase in the rate of self-perceived health as regular or bad, which could be related to the easier access to services and increase in the level of exigency about their own health.

Data about the country from 2008 showed that most people aging 60 or more considered their health good or very good (45.5%), while a small portion (12.6%) considered their health bad or very bad $^1$ .

According to the Census 2010, Florianópolis stands out amongst other cities and capitals, keeping a historical tendency of one of the best levels of home income per capita<sup>12</sup>. The mean home income per capita in the cities of Macapá, Teresina, Manaus, Rio Branco, São Luís, Maceió, Boa Vista and Belém represented only 40% of the total value in Florianópolis<sup>12</sup>. These data in a way reflect in the other variables assessed in the surveys, for the purchasing power may lead to better life conditions.

Some limitations found in the comparison between *Perfil do Idoso* and *EpiFloripa Idoso* deserve attention, especially regarding differences in methodology such as sampling and way of posing some of the questions in the studies. However, bearing in mind that both studies were carried out with methodological rigor and collected data representing the elderly population of the city, the information brought about is very relevant for the drawing of changes in the elderly profile in Florianópolis in the period studied.

# CONCLUSION

The changes that occurred over the seven years in-between the surveys analyzed indicate an increase in the school level, a decrease in the elderly receiving pension or any other kind of income, and an increase in the number of ageing people with a paid work. The number of ageing people receiving more than 10 minimum wages dropped, but the percentage of those receiving up to three minimum wages rose.

Although the data regarding monthly income did not present improvement in the period, there was an increase in the number of ageing people who consider their current economic situation better than when they were at the age of 50, as well as those who perceive their health as better than the health of other individuals at the same age. A significant rise in the number of people who contracted a private healthcare plans was also seen in the period; however, the proportion of subjects perceiving their health as regular/bad increased.

The formulation of public policies aiming at better health conditions for the elderly demands a study of habits and conditions that may affect daily life. The results of the comparison between studies may provide the basis for the action of authorities, bringing about information that helps identify relevant aspects that should be prioritized, thus bringing effective results for the target population.

### **REFERENCES**

- Instituto de Pesquisa Econômica Aplicada (IPEA). PNAD 2009 – Primeiras Análises: Tendências Demográficas. Governo Federal Secretaria de Assuntos Estratégicos da Presidência da República. Brasil; 2010.
- Veras RP. Experiências e tendências internacionais de modelos de cuidado para com o idoso. Ciênc Saúde Coletiva 2012; 17(1): 231-8.
- Martin GB, Cordoni Júnior L, Bastos YGL. Aspectos demográficos do processo de envelhecimento populacional em cidade do sul do Brasil. Epidemiol Serv Saúde 2005; 14(3): 151-8.
- World Health Organization (WHO). Men, Ageing And Health. Achieving health across the life span. Geneva; 1999. p. 1-63.
- Instituto Brasileiro de Geografia e Estatística (IBGE).
   Indicadores Sociodemográficos e de saúde no Brasil.
   Estudos e Pesquisas informação demográfica e socioeconômica número 25. Rio de Janeiro; 2009.
- Veras RP, Souza CAM, Cardoso RF, Milioli R, Dutra S. Pesquisando populações idosas: a importância do instrumento e o treinamento de equipe: uma contribuição metodológica. Rev Saúde Pública 1988; 22(6): 513-8.
- Veras RP. País jovem com cabelos brancos. Rio de Janeiro: Relume Dumará/UERJ; 1994.

- Veras RP, Dutra S. Questionários BOAS (Brazil Old Age Schedule) versão 2000 [Internet]. Disponível em: http://www.unati.uerj.br. (Acessado em: 15 de setembro de 2012).
- Instituto Brasileiro de Geografia e Estatística (IBGE). Censo 2000 [Internet]. Disponível em http://www. ibge.gov.br/home/estatistica/populacao/default\_ censo\_2000.shtm. (Acessado em 2 de agosto de 2011).
- Perls T, Kunkel LM, Puca AA. The genetics of exceptional human longevity. J Mol Neurosci 2002; 19(1-2): 233-8.
- Veras RP, Caldas CP, Araújo DV, Kuschnir R, Mendes W. Características demográficas dos idosos vinculados ao sistema suplementar de saúde no Brasil. Rev Saúde Pública 2008; 42(3): 497-502.
- 12. Instituto Brasileiro de Geografia e Estatística (IBGE). Indicadores sociais municipais: uma análise dos resultados do universo do censo demográfico 2010. Estudos e pesquisas informação demográfica e socioeconômica número 28. Rio de Janeiro; 2011.
- Ramos LR. Fatores determinantes do envelhecimento saudável em idosos residentes em centro urbano: Projeto Epidoso, São Paulo. Cad Saúde Pública 2003; 19(3): 793-8.

- Pinto LF, Soranz DR. Planos privados de assistência à saúde: cobertura populacional no Brasil. Ciênc Saúde Coletiva 2004; 9(1): 85-98.
- 15. Costa NR, Pinto LF. Avaliação de programa de atenção à saúde: incentivo à oferta de atenção ambulatorial e a experiência da descentralização no Brasil. Ciênc Saúde Coletiva 2002; 7(4): 907-23.
- 16. Siqueira SAV, Senna MCM, Oliveira PTR, Pinto LF. Descentralização e assistência à saúde no Brasil: um balanço dos anos 90. Rev Saúde em Debate 2002; 26(60): 25-36.

Received on: 10/22/2012

Final version presented on: 08/18/2013

Accepted on: 09/13/2013