

PREVALENCE OF MEDICAL VISITS AND ASSOCIATED FACTORS: A POPULATION-BASED STUDY IN SOUTHERN BRAZIL

ANTONIO FERNANDO BOING¹, IZABELLA BARISON MATOS^{2*}, MARINA PATRÍCIO DE ARRUDA³, MARIA CONCEIÇÃO DE OLIVEIRA⁴, KATHIE NJAINE⁵

Study conducted at Universidade do Planalto Catarinense (UNIPLAC), Lages, SC, Brazil

ABSTRACT

OBJECTIVE. To describe the prevalence of medical visits and associated factors in an adult population of a medium-sized municipality in Southern Brazil.

METHODS. A cross-sectional population-based study was carried out in a representative random cluster sampling in Lages, state of Santa Catarina, Brazil. The reference population comprised adults (aged 20 to 59 years) and 2,022 individuals were interviewed. The outcome was medical visits during the 12 months prior to the study. Data related to the type of service (public/private) and evaluation of these services were also collected. The independent variables were gender, race/skin color, marital status, income, schooling, health self-perception, nutritional status, self-reported diabetes, high blood pressure, smoking, and alcohol-related problems. Poisson regression was carried out and the prevalence rate was obtained.

RESULTS. The prevalence of medical visits was 76.0% (95%CI 73.6-78.4). Women, those with higher income, those who had diabetes, smokers, ex-smokers, those having alcohol-related problems, and those who evaluated their health negatively reported a higher prevalence of medical visits. We also found that among lower income people, medical visits to the Unified Health System (Sistema Único de Saúde) were more frequent.

CONCLUSION. Prevalence of medical visits varied according to the population studied. Health policies at the three government levels must acknowledge such inequality to subsidize actions in the sector to suggest equality policies.

KEY WORDS: Delivery of health care. Medical visits. Socioeconomic factors. Epidemiology. Unified health system.

*Correspondência:

Universidade do Planalto
Catarinense
Programa de Pós-Graduação
em Saúde Coletiva
Av. Castelo Branco, 170 -
Bairro Universitário - Caixa
Postal 525
Lages - SC, Brazil
CEP: 88509-900
izabmatos@gmail.com

INTRODUCTION

The political and legal changes that have occurred in Brazil in the last few decades, especially the consolidation of the Unified Health System (SUS) and the expansion of the Family Health Strategy (ESF), had a profound effect on the reorganization of health services in the country. Unlike previous periods, starting in the 1990s, the public health system has been driven by universal health care, with the purpose of providing integral actions.^{1,2} Thus, the use of health care services for rehabilitation, prevention, and treatment of diseases and health promotion has become the right of every citizen. It was also during this period that private health care was remodeled, especially under the impact of the expansion of private health insurance plans, which had tax incentives and few regulatory barriers.³

Despite these changes in the health sector, with significant

increased access to different health care services, the literature reports that certain population groups use health care services more often than others. With regard to the prevalence of medical visits, socioeconomic and demographic conditions, and disease load are suggested as important factors responsible for modulating these differences.^{4,5}

Knowing how often the population uses health care services – and, more specifically, how often they have medical visits, – as well as the factors associated with these episodes, is essential within the current context of the organization of health care services for planning future actions in the sector and for the establishment of public policies.⁶ In this sense, epidemiological data derived from population-based studies may contribute to and support discussions about accessibility, problem-solving capacity, and equity. It is essential for health care managers to have information on this topic, considering the expansion of the

1. Mestre em Saúde Pública; área de concentração: Epidemiologia; Doutor em Ciências Odontológicas e Professor do Programa de Pós-graduação em Saúde Pública da Universidade Federal de Santa Catarina – UFSC, Florianópolis, SC
2. Doutora em Ciências - Saúde Pública e Professora do Programa de Pós-graduação em Saúde Coletiva da Universidade do Planalto Catarinense, Lages, SC
3. Doutora em Serviço Social - Professora do Programa de Pós-graduação em Saúde Coletiva da Universidade do Planalto Catarinense, Lages, SC
4. Doutora em Ciências Humanas - Professora do Programa de Pós-graduação em Saúde Coletiva da Universidade do Planalto Catarinense, Lages, SC
5. Doutora em Ciências - Saúde Pública - Professora do Programa de Pós-graduação em Saúde Coletiva da Universidade do Planalto Catarinense, Lages, SC

health system based on real population demand. The objective of the present study was to describe the prevalence of medical visits and associated factors in the adult population of a medium-sized municipality in southern Brazil. We also investigated the satisfaction with the service and the offer of guidance on health care from health professionals to the users.

METHODS

A cross-sectional population-based study was conducted in 2007 in Lages, state of Santa Catarina, Brazil. The economic activity of this municipality, which had an estimated population of 166,733 inhabitants in 2005,⁷ is based on the logging industry – especially for the production of pulp and paper – as well as livestock and agriculture.⁸ The population studied comprised male and female adults (20 to 59 years old) living in the urban area of the municipality (n = 86,998).

To calculate the sample size, 95% confidence interval, 50% expected prevalence, sampling error of 3.5 percentage points, and effect of study design of 2 were used as parameters. An additional value of 10% was incorporated into the sample due to estimated losses and 20% was added to control for confounding factors. The final sample included 2,051 individuals. Cluster sampling was used, with the census tracts being the units of the first stage and the households being the units of the second stage.

All adults living in the selected households were considered potentially eligible for the study. Those individuals who refused to participate in the study and were not home after four visits, including at least one visit at night time and another visit during the weekend were considered as losses. Pregnant women, amputees, bedridden patients with plaster, patients with psychiatric disorders and those who for some reason could not remain in the proper position for anthropometric measurement or could not complete the questionnaire were excluded.

Data on the prevalence of medical visits were collected by asking the following question: “*Have you seen a doctor in the past 12 months?*”. The study subjects were also asked about the type of the last medical service used (private health plan or public health service [Unified Health System]), their satisfaction with the service (positive – which included the concepts: very good and fair – and negative – concepts: reasonable, poor, and very poor). They were also asked if they had received guidance from health professionals about health care in the last 12 months.

The independent variables were: gender, age (20-29, 30-39, 40-49, or 50-59 years old), race/skin color (self-reported: white or brown and black), marital status (living with a partner or not), *per capita* monthly income in minimum wages per quartiles (0.02-0.50, 0.51-0.88, 0.89-1.58 or 1.59-19.74), years of schooling (0-4, 5-8, 9-11 or 12 and more), self-perceived health (positive or negative evaluation), nutritional status (normal weight, overweight or obesity), self-reported diabetes (yes or no), high blood pressure (yes [blood pressure higher than 140mmHgx90mmHg] or not), smoking (current smoker, former smoker or never smoked), and alcohol-related problems (measured using the CAGE [yes or no]).⁹

Data were independently entered by two people in the computer program Epi-Info 6.04, and then checked for database consistency. Data analysis was performed using Stata 9. Initially, we described the distribution of the sample and calculated the

prevalence rates of medical visits in each population stratum. Next, a bivariate analysis was performed using Poisson regression, obtaining the prevalence ratio and its respective confidence intervals as measure of effect size. The multivariate analysis included all variables with $p < 0.25$, and the final model included those variables with $p < 0.05$. All analyses considered the effect of sample design. In addition, we found differences when comparing the distributions according to age and gender of our sample with those provided by the IBGE (Brazilian Institute of Geography and Statistics) for the year 2005.⁷ Therefore, weights were calculated and incorporated so that the demographic distribution of the sample was in agreement with the census data provided by the IBGE. Such adjustments were carried out using the *svy* commands of Stata. The project was recorded under the number 001-07, approved by the Ethics Research Committee of UNIPLAC in compliance with the resolution 196/96 of the National Health Council. The research was funded by the Fund for Encouragement of Research Development of UNIPLAC.

RESULTS

The response rate was 98.6%, totaling 2,022 individuals actually interviewed. Of these, most were women, individuals aged 20 to 29 years, white and living with a partner (Table 1). For a little more than half of the sample, *per capita* monthly income was up to 0.88 minimum wage and 46.5% had up to 8 years of schooling. The analysis of morbidities showed that 6.9% had diabetes and 27.7% had high blood pressure. The proportion of smokers was 29.7% and 11.5% of individuals had alcohol-related problems.

The prevalence of medical visits in the 12 months preceding the interview was 76.0% (95%CI 73.6-78.4). The outcome frequency in each population group is described in Table 1. The bivariate analysis showed that women had a 22% higher prevalence of seeing a doctor during the past year. Higher prevalence of medical visits was also found among those aged 50 to 59 years (compared to the group aged 20 to 29 years) and those who reported a higher income. Individuals with diabetes, those who assessed their health negatively, smokers or former smokers, and those who had alcohol-related problems also had higher outcome prevalence. Skin color/race, marital status, schooling, nutritional status, and blood pressure levels were not associated with the outcome.

Even after adjusting for the other variables investigated, the multivariate analysis showed that the prevalence of medical visits remained higher among women (19% higher compared to men) and those with higher income (14% higher in the highest income quartile compared to lowest income quartile) (Table 1). The frequency also remained higher among individuals with diabetes, negative self-assessment of health, smokers and former smokers, and those having alcohol-related problems.

With respect to the type of medical service used, 47.5% (95%CI 44.8-50.2) mentioned the private sector (private health expenditures or health insurance) and 52.5% (95%CI 49.8-55.2) mentioned the public sector. In spite of the fact that these percentages were similar on the average of the population investigated, there were significant differences according to the respondents' income. Figure 1 shows that the lower the individual's income, the higher the use of SUS for medical visits

Table 1 – Distribution of the sample, prevalence of medical visits and crude and adjusted prevalence ratios among medical visits and sociodemographic variable, nutritional status, life habits, self-reported diseases, and health perception. Lages, Santa Catarina, Brazil, 2007.

	Total sample n (%)	Prevalence (95%IC)	PR _{crude} (95%IC)	p	PR _{adjusted} (95%IC)	p
Total sample	2022 (100.0)	76.0 (73.6-78.4)				
Gender				<0.001		<0.001
Male			1.00		1.00	
Female	779 (47.8)	66.9 (62.5-71.2)	1.22 (1.14-1.31)		1.19 (1.11-1.27)	0.073
Age	1243 (52.2)	81.7 (79.3-84.0)		0.003		
20-29			1.00		1.00	
30-39	623 (32.2)	73.9 (70.5-77.3)	1.00 (0.93-1.08)		1.00 (0.94-1.07)	
40-49	444 (29.7)	74.2 (69.1-79.3)	1.04 (0.96-1.11)		1.00 (0.94-1.09)	
50-59	528 (22.9)	76.5 (72.6-80.5)	1.12 (1.05-1.19)		1.05 (0.99-1.13)	
Race/skin color	423 (15.2)	82.9 (79.4-86.4)		0.148	*	
Black and brown			1.00			
White	720 (36.4)	73.8 (69.3-78.2)	1.05 (0.98-1.14)			
Marital status	1237 (63.6)	77.9 (75.0-80.8)		0.119	*	
Single			1.00			
Living with a partner	607 (30.0)	73.1 (69.2-76.9)	1.06 (0.99-1.13)			
Income (per capita minimum wages)	1410 (70.0)	77.2 (73.9-80.4)		0.024		0.003
0,02-0,50			1.00		1.00	
0,51-0,88	502 (25.3)	71.4 (67.1-75.8)	1.08 (1.01-1.15)		1.09 (1.02-1.17)	
0,89-1,58	500 (25.6)	76.9 (73.0-80.9)	1.08 (1.01-1.15)		1.10 (1.03-1.18)	
1,59-19,74	515 (26.4)	77.0 (73.6-80.5)	1.10 (1.02-1.19)		1.14 (1.05-1.24)	
Schooling (years)	467 (22.6)	78.6 (74.6-82.5)		0.234	*	
0-4			1.00			
5-8	357 (23.0)	77.6 (71.8-83.3)	0.94 (0.88-1.02)			
9-11	571 (29.3)	73.3 (69.8-76.8)	0.97 (0.90-1.05)			
> 12	611 (31.8)	75.3 (71.6-79.0)	1.03 (0.95-1.12)			
Nutritional status	456 (23.0)	79.9 (76.0-83.8)		0.096	*	
Normal weight			1.00			
Overweight	835 (43.5)	74.2 (70.6-77.9)	1.02 (0.96-1.08)			
Obesity	672 (34.8)	75.3 (71.9-78.8)	1.06 (0.99-1.14)			
Diabetes	462 (21.7)	79.0 (74.2-83.8)		<0.001		<0.001
No			1.00		1.00	
Yes	1873 (94.2)	75.1 (72.4-77.7)	1.21 (1.14-1.29)		1.13 (1.07-1.20)	
High blood pressure	139 (5.8)	90.8 (87.0-94.5)		0.561	*	
No			1.00			
Yes	1459 (72.1)	75.6 (72.9-78.2)	1.02 (0.96-1.08)			
Health self-assessment	560 (27.9)	76.9 (72.7-81.0)		<0.001		0.001
Positive			1.00		1.00	
Negative	1472 (75.5)	73.4 (70.8-76.0)	1.13 (1.07-1.20)		1.11 (1.04-1.18)	
Smoking	550 (24.5)	83.3 (79.3-87.3)		0.001		0.029
Smoker			1.00		1.00	
Former smoker	600 (30.1)	70.5(67.4-73.7)	1.16 (1.08-1.24)		1.13 (1.04-1.24)	
Never smoked	326 (15.5)	81.8 (76.3-87.3)	1.09 (1.04-1.15)		1.07 (1.01-1.13)	
Alcohol problems	1090 (54.4)	77.2 (74.6-79.8)		<0.001		0.031
Yes			1.00		1.00	
No	232 (13.3)	64.5 (58.3-70.8)	1.20 (1.10-1.31)		1.12 (1.01-1.23)	

PR: Prevalence ratio; *: removed from the analysis due to loss of statistical significance in the adjusted analysis

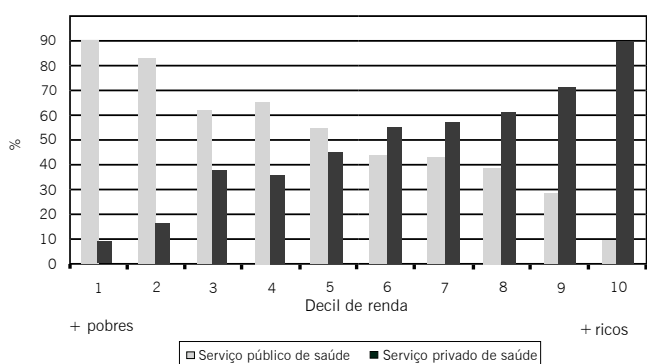
and, conversely, the higher the income of a population stratum, the higher the use of private services.

Regarding the evaluation of medical services by the population as a whole, we found that private services were more reputable (92.4% considered it positive) than the public service (80.4% of positive evaluations) (Table 2). According to the confidence intervals of these measures, we found that this difference is statistically significant, which also occurred when

we analyzed the evaluation provided by the population stratum with higher income. However, in the lowest income quartile there was no statistical significance regarding the evaluation of public and private services. Finally, the proportion of individuals who reported having received professional guidance on health care was higher among those who used the private service and, within this segment, it was even higher among those with higher income.

Table 2 – Evaluation of health services used and proportion of individuals who received guidance from health Professionals on health care. Lages, Santa Catarina, Brazil, 2007.

Variables	All % (95%IC)	Richest quartile % (95%IC)	Poorest quartile % (95%IC)
Positive evaluation of public service	80.4 (77.4-83.3)	78.9 (69.7-88.0)	79.9 (75.4-84.5)
Positive evaluation of private service	92.4 (90.2-94.6)	94.4 (91.7-97.2)	88.6 (81.0-96.2)
Users of the public service who received guidance from health professionals on health care	48.2 (47.8-55.7)	41.1 (27.4-54.9)	48.7 (43.2-54.2)
Users of the private service who received guidance from health professionals on health care	63.9 (60.4-67.4)	71.1 (65.2-76.9)	50.4 (36.5-64.5)

Figura 1 - Use of public and private health services for medical visits according to the income deciles. Lages, Santa Catarina, Brazil, 2007.

+ *pobres* = *poorest*

+ *ricos* = *richest*

Decil de renda = *income decile*

Serviço público de saúde = *Public health service*

Serviço privado de saúde = *Private health service*

DISCUSSION

Cross-sectional population-based studies are important tools to describe the epidemiological profile and the use of health services. However, essential care should be taken in order to avoid distortions in the results.¹⁰ Accordingly, in the present study, the high response rate (98.6%) and the random sample selection are very important aspects. Moreover, there was quality control of data and the interviewers were unaware of the purpose of the study, reducing the chance of biases. The overrepresentation of women and the older age stratum was corrected by the weighted analyses that followed the demographic distribution predicted for the municipality by the IBGE. Finally, it is important to point out that an important limitation of cross-sectional studies is that they are unable to establish causal relationships, since exposure and outcome are investigated at the same time; therefore, the possibility of reverse causality bias cannot be eliminated in some associations tested.¹¹

In the present study, the proportion of individuals who had at least one medical visit in the past year (76.0%) was higher than that described in the national average in other Brazilian municipalities and abroad. In Pelotas, state of Rio Grande do

Sul, Brazil, Costa et al.¹² reported an outcome prevalence of 70.9%, while the prevalence in Rio Grande, state of Rio Grande do Sul, was 66.0%.¹³ Considering the whole country, data from the National Survey per Household Sample indicated an increase in the proportion of Brazilian individuals who saw a doctor in the last 12 months between 1998 (54.7%) and 2003 (62.9%) Travassos & Castro.¹⁴ On the international scene, these values ranged between 60% and 70%.¹⁵ It is worth highlighting, however, that variations in the age groups investigated in each study limit direct comparisons.

The prevalence of medical visits is the result of processes that involve several factors and requirements. An important modulator of this phenomenon is the individuals' socioeconomic status. In a systematic review of the literature on this topic, Mendoza-Sassi & Beria¹⁵ found that the direction of the association between exposure and outcome varies according to the country investigated. In Brazil, studies have been consistent in identifying the existence of inequity in the use of health services. In other words, despite showing greater disease load and, therefore, needing to use health services more often, the most underprivileged strata of the population show a lower frequency of medical visits and less access to other services in the health area.¹⁶ Thus, in the present study, we found that the prevalence of medical visits was higher among those having higher income; however, there was no difference regarding schooling.

The importance of the Unified Health System for the poorest deciles of the population and the predominance of medical visits in private services among those with the highest income were also highlighted. The Federal Constitution of 1988 and the Organic Laws of Health in Brazil officiated the proposal for a health system with public universal coverage.¹⁷ Concomitant with the implementation of SUS, however, there was the expansion of the private health sector, which essentially incorporated the richest population groups through health insurance plans or direct payment of health expenditures. Among the reasons that led to this concentration of the richest population in the private service, we may mention the increase in the supply of this sector, which would have an influence on the demand at the same time as it is stimulated by the demand, the poor access to the public service, and the negative evaluation of the service provided. These last two factors are associated with a massive increase in the population served by the public health system at the time of its universalization without direct increase in the volume of resources invested in the sector.^{17,18} The importance of

an effective structure for a universal public health care system is expressed when it is detected that countries with stronger participation of the private sector there is more inequality in favor of those with higher income.¹⁹ Thus, the possibility of equal access to health care services is questionable when the patient needs to pay for the services provided.²⁰ Further studies are needed to clarify the reasons and consequences of the socioeconomic differences in the type of services used for medical visits and in their assessments.

In Brazil, researchers have analyzed the profile of the morbidity reported, the access to and the use of health services and have found that both in terms of curative and, especially, preventive care, women are the most frequent consumers.²¹ The same pattern was seen for medical visits in the population investigated in the present study. Rieker & Bird²² reported that despite the prevalence of chronic fatal diseases among men, women are suffering from short-term illnesses, acute and transient diseases, chronic non-fatal diseases and common symptoms. It is also important to highlight the social role played by women, who may suggest subjective aspects involved both in the risk of illness and frequency of medical visits. This subjective aspect is stressed as being important to explain the use of health services. Thus, such analyses not only demonstrate inequality in the use of medical services, but also reflect differences in the perceptions regarding medical needs according to gender. In other words, social experiences may be responsible for higher or lower use of medical services.^{15,21}

A better understanding of the use of health services requires taking into consideration not only the organizational structure of the services offered, the ease or difficulty of access, and even the costs, but also the subjective values must be considered. The frequency of medical visits can be an indicator of different behaviors regarding the decision-making process in face of the disease, such as the different social representations of disease, health, and healing, the creation of demand stimulated by the media, and the asymmetrical relationship between doctors and patients.²³

The higher frequency of medical visits among smokers or former smokers is consistent with studies conducted in Switzerland,²⁴ Sweden,²⁵ Spain,²⁶ South Korea,²⁷ and the United States.²⁸ In the present study, the PR was especially higher among former smokers. This finding may be related to the fact that this group of patients is more concerned about their health, and this is reason for them to quit smoking and to have more frequent medical visits. Another possibility is that these people stopped smoking due to illness, the same reason that motivates their medical visits. Finally, a potentially greater disease load among current smokers may be stimulating them to have a higher prevalence of outcome in comparison with those who never smoked. Similarly, those who reported alcohol-related problems may, therefore, have greater need of medical visits.

People with health problems and those who evaluate their general health as being poor tend to see their doctors more frequently for treatment and follow-up.²⁸ In the present study, the outcome prevalence was 13% higher among individuals who self-reported diabetes and 11% higher among those who rated their health negatively. Such phenomena were also identified in other studies.^{29,30} However, there was no association between

medical visits and high blood pressure levels, which is not in agreement with the literature. There is need of further studies that reveal the reason for this lack of association, identifying whether there are difficulties in accessing the health services or whether other constraints are operating in the municipality.

The use of data on health and epidemiology should be seen as an everyday tool, close to local practices and feasible to achieve a broader knowledge and monitor indicators of health, illness, and events related to both these aspects. In the present study, differences and inequalities in the use and evaluation of health services were identified. Based on these findings, public policies can be established or remodeled, and future researches should evaluate their effectiveness and monitor the health of the population.

CONCLUSION

There are differences in the prevalence of medical visits among different population groups. The fact that those having the lowest income use the health services less often is of particular concern because this population has a higher disease load. The use of the Unified Health System for medical visits significantly varied among different socioeconomic strata.

No conflicts of interest declared concerning the publication of this article.

Financial support:

Fundo de Incentivo ao Desenvolvimento de Pesquisa da Universidade do Planalto Catarinense (UNIPLAC)

REFERENCES

- Noronha JC, Lima LD, Machado CV. O Sistema Único de Saúde - SUS. In: Giovanella L, Escorel S, Lobato LVC, Noronha JC, Carvalho AI. Políticas e sistema de saúde no Brasil. Rio de Janeiro: Fiocruz; 2008.
- Rosa WAG, Labate RC. Programa saúde da família: a construção de um novo modelo de assistência. *Rev Latinoam Enferm*. 2005;13(6):1027-34.
- Costa NR. O regime regulatório e o mercado de planos de saúde no Brasil. *Ciênc Saúde Coletiva*. 2008;13(5):1453-62.
- Mendoza-Sassi R, Béria JU. Utilización de los servicios de salud: una revisión sistemática sobre los factores relacionados. *Cad Saúde Pública*. 2001;17(4):819-32.
- Regidor E, Martínez D, Calle ME, Astasio P, Ortega P, Domínguez V. Socioeconomic patterns in the use of public and private health services and equity in health care. *BMC Health Serv Res*. 2008;8:183.
- Viacava F. Informações em saúde: a importância dos inquéritos populacionais. *Ciênc Saúde Coletiva*. 2002;7(4):607-21.
- IBGE (Instituto Brasileiro de Geografia e Estatística). Sistema IBGE de recuperação automática. [citado 22 set 2008]. Disponível em: <http://www.sidra.ibge.gov.br>.
- Munarin A. Educação e esfera pública na serra catarinense: a experiência política do plano regional de educação (1993-1996). Florianópolis: Centro de Ciências da Educação/Núcleo de Publicações; 2000.
- Masur J, Monteiro M. Validation of the CAGE alcoholism screening test in Brazilian psychiatry inpatient hospital setting. *J Biol Res*. 1983;16(2):215-8.
- Viacava F, Dachs N, Travassos C. Os inquéritos domiciliares e o Sistema de Informações em Saúde. *Ciênc Saúde Coletiva*. 2006;11(4):863-9.
- Rothman KJ, Greenland S. *Modern Epidemiology*. Lippincott Williams & Wilkins: Philadelphia, 1998.
- Costa JSD, Reis MC, Silveira Filho CV, Linhares RS, Piccinini F. Prevalência de consultas médicas e fatores associados, Pelotas (RS), 1999-2000. *Rev Saúde Pública*. 2008;42(6):1074-84.
- Mendoza-Sassi R, Béria JU, Barros AJD. Outpatient health service utilization and associated factors: a population-based study. *Rev Saúde Pública*. 2003;37(3):372-8.
- Travassos C, Castro MSM. Determinantes e desigualdades sociais no acesso e na utilização de serviços de saúde. In: Giovanella L, Escorel S, Lobato LVC,

- Noronha JC, Carvalho AI. Políticas e Sistema de Saúde no Brasil. Rio de Janeiro: FIOCRUZ, 2008.
15. Mendoza-Sassi R, Béria JU. Utilización de los servicios de salud: una revisión sistemática sobre los factores relacionados. *Cad Saúde Pública*. 2001;17(4):819-32.
 16. Negri M, Soares W. Desigualdade social e saúde no Brasil. *Cad Saúde Pública* 2002;18(Suppl):77-87.
 17. Farias LO, Melamed C. Segmentação de mercados da assistência à saúde no Brasil. *Ciênc Saúde Coletiva*. 2003; 8(2):585-98.
 18. Faveret Filho P, Oliveira P. A universalização excludente: reflexões sobre as tendências do sistema de saúde. *Dados Rev Ciênc Sociais*. 1990;33(2):257-83.
 19. Van Doorslaer E, Masseria C, Koolman X, OECD Health Equity Research Group. Inequalities in access to medical care by income in developed countries. *CMAJ*. 2006;174(2):177-83.
 20. Lostao L, Regidor E, Geyer S, Aiach P. Patient cost sharing and physician visits by socioeconomic position: findings in three Western European countries. *J Epidemiol Community Health*. 2007;61(5):416-20.
 21. Pinheiro RS, Viacava F, Travassos C, Brito AS. Gênero, morbidade, acesso e utilização de serviços de saúde no Brasil. *Ciênc Saúde Coletiva*. 2002;7(4):687-707.
 22. Bird CE, Rieker PP. Gender matters: an integrated model for understanding mens and womens health. *Soc Sci Med*. 1999;48(6):745-55.
 23. Luz M T. As novas formas da saúde: práticas, representações e valores culturais na sociedade contemporânea. *Rev Bras Saúde Família*. 2008;9(1):38-50.
 24. Gutzwiller F, La Vecchia C, Levi F, Negri E, Wietlisbach V. Smoking, prevalence of disease and health service utilization among the Swiss population. *Rev Epidemiol Sante Publique*. 1989;37(2):137-42.
 25. Freeborn DK, Mullooly JP, Pope CR, McFarland BH. Smoking and consistently high use of medical care among older HMO members. *Am J Public Health*. 1990;80(5):603-5.
 26. Artalejo FR, Manzano BA, Guallar-Castillón P, Mendizabal MTP, Enríquez JG, Calero JR. The Association of tobacco and alcohol consumption with the use of health care services in Spain. *Prev Med*. 2000;31(5):554-61.
 27. Jee SH, Kim IS, Suh I. The effect of smoking on health service utilization. *Yonsei Med J*. 1993;34(3):223-33
 28. Saez M. Condicionantes en la utilización de los servicios de atención primaria: evidencias empíricas e inconsistencias metodológicas. *Gac Sanit*. 2003;17(5):412-419.
 29. Costa JD, Facchini LA. Utilização de serviços ambulatoriais em Pelotas: onde a população consulta e com que frequência. *Rev Saúde Pública*. 1997;31(4):360-9.
 30. Capilheira MF, Santos IS. Fatores individuais associados à utilização de consultas médicas por adultos. *Rev Saúde Pública*. 2006;40(3):436-43.

Artigo recebido: 11/04/09
Aceito para publicação: 27/09/09
