DOI: 10.1590/1809-4503201400040013

ORIGINAL ARTICLE / *ARTIGO ORIGINAL*

Morbidity in users of Family Health teams in the northeast of Minas Gerais based on the International Classification of Primary Care

Morbidade em usuários de equipes de Saúde da Família no nordeste de Minas Gerais com base na Classificação Internacional da Atenção Primária

Valquiria M. Silva[I], Ivelisa V. S. Pereira[I], Maria de Jesus L. Rocha[I], Antônio P. Caldeira[II]

ABSTRACT: This study aimed to characterize the profile of morbidity among users of family health teams in the northeastern macroregion of Minas Gerais, Brazil. This is a cross-sectional population-based study, developed with the teams of the Family Health Strategy (FHS). It was conducted by data collection, using semi-structured questionnaires with specific instruments adjusted for three categories of professional teams of the FHS: physicians, nurses and community health agents (CHA). We used the International Classification of Primary Care, second edition (ICPC-2) to encode morbidity. Information was collected from 17,988 people, and 10,855 (60.3%) were females; 1,662 (9.2%) questionnaires were related to care by the physician; 2,530 (14.1%) were related to care by nurses and 13,796 (76.7%) corresponded to visits by and meetings with the CHA. The main health problems were: circulatory diseases (especially hypertension), musculoskeletal problems (especially back pain) and diseases of the digestive tract (especially intestinal parasites), which accounted for more than 40% of the medical consultations. Nonspecific complaints and visits related to women's health were the most prevalent in the care by nurses. In meetings with CHA, complaints about respiratory, musculoskeletal and cardiovascular diseases were the most pointed. The morbidity profile observed does not differ substantially from the results of other studies. Small differences can be attributed to regional particularities.

Keywords: Morbidity. Primary Health Care. Health Surveys. Epidemiology. International Classification of Diseases. Unified Health System.

[I]State Department of Health of Minas Gerais – Belo Horizonte (MG), Brazil.
[II]*Universidade Estadual de Montes Claros* – Montes Claros (MG), Brazil.
Corresponding author: Antônio P. Caldeira. Universidade Estadual de Montes Claros. Rua Monte Pascoal, 225, Ibituruna, CEP: 39401-347, Montes Claros, MG, Brasil. E-mail: antonio.caldeira@unimontes.br
Conflict of interests: nothing to declare – **Financial support:** none.

RESUMO: Este estudo objetivou caracterizar o perfil de morbidade referida por usuários das equipes de saúde da família na macrorregião nordeste de Minas Gerais. Trata-se de um estudo transversal de base populacional, desenvolvido junto às equipes da Estratégia Saúde da Família (ESF), com uso de questionários semiestruturados adaptados para três categorias profissionais das equipes de saúde da família: médicos, enfermeiros e agentes comunitários de saúde (ACS). Utilizou-se a Classificação Internacional da Atenção Primária, segunda edição (CIAP 2), para codificação da morbidade referida. Foram coletadas informações de 17.988 pessoas, em 204 equipes da ESF, sendo 10.855 (60,3%) do sexo feminino; 1.662 (9,2%) questionários foram referentes ao atendimento do médico, 2.530 (14,1%) do enfermeiro e 13.796 (76,7%) corresponderam aos encontros com ACS. Os principais problemas de saúde foram: doenças do aparelho circulatório (especialmente hipertensão), queixas musculoesqueléticas (especialmente as lombalgias) e doenças do aparelho digestório (especialmente as parasitoses intestinais), que juntas responderam por mais de 40% das consultas médicas. As queixas inespecíficas e atendimentos relacionados à saúde da mulher foram prevalentes nos atendimentos de enfermeiros. Os ACS registraram mais as queixas referentes a problemas respiratórios, musculoesqueléticos e cardiovasculares. O perfil de morbidade observado não difere substancialmente de outros estudos, com pequenas diferenças que podem ser atribuídas às particularidades regionais.

Palavras-chave: Morbidade. Atenção Primária à Saúde. Inquéritos de Saúde. Epidemiologia. Classificação Internacional de Doenças. Sistema Único de Saúde.

INTRODUCTION

The Unified Health System (SUS), in Brazil, has allowed a rapid expansion of primary care, with significantly positive results in the provision of services and indicators of access to health care by the population[1]. Despite the progress made, there are still challenges to overcome[2]. Since 1994, when the first Family Health Strategy (FHS) teams were deployed, the strengthening of health actions has been discussed, with emphasis on promotion activities and strategies to change the care model, previously hospital-centered and focused on medical consultations.

It is natural to assume that the changes in the care model involve having a better knowledge of the characteristics of assisted demand, among other things. Self-perception of health conditions has been employed as a measure that is able to reflect an integrated concern of the individual in the biological, psychological and social dimensions[3]. The use of associated epidemiological data can be very useful for the design of appropriate care strategies for users, including the morbidity statistics[4].

There are few studies in the country on the profile of morbidities that affect people assisted by primary care. The Primary Health Care Information System (SIAB), which is

the official record of the major morbidities assisted by the FHS also has weaknesses and does not provide necessary and reliable information for the identification of morbidities[5].

In principle, the reality on the morbidity of primary care users demands, in addition to the development of standardized electronic medical records, training for FHS workers. Classification and coding of diagnoses, complaints and health needs of patients is a fundamental step in this process. In this context, the International Classification of Primary Care, in its second edition (ICPC-2), constitutes an important contribution in the knowledge of morbidity at this level of care[6]. The coding system is relatively simple and easy, and has been used in many countries[4,7,8].

Given the lack of electronic medical records, surveys based on interviews or printed medical records can provide important information. The information obtained from the surveys help to identify the epidemiological profile of the population, assist health policy and allow inferences on different health dimensions[9]. Also, the various aspects of accessibility to health services can be identified by the survey[10]. This study aimed to characterize the profile of morbidity reported by users of the FHS teams in the Northeast macroregion of Minas Gerais, based on ICPC-2.

METHODOLOGY

This is a cross-sectional, population-based study that was developed in the Northeast macroregion of Minas Gerais with the FHS teams. The region consists of 63 municipalities and is one of the poorest areas of the country, incorporating Vale do Jequitinhonha and Vale do Mucuri, with a Human Development Index below 0.65 as the general average. During data collection, there was a record of 268 FHS teams, including teams of Community Health Agents (CHA) for a population of approximately 917,000 inhabitants. Adolescents and adults who use the service and are registered by the Family Health teams in the region studied were eligible for this study.

During data collection, semi-structured questionnaires developed especially by the researchers were used. They were based on similar studies in the literature[11] and on the objectives of the study. The questionnaires were adapted for three professional categories from the family health teams: doctors, nurses and community health agents (CHA), which were considered by the investigators as having greater contact with the morbidity demands of the population. Data collection was performed on a specific day, previously defined ("one single day morbidity"[12,13]), after intensive mobilization of health managers, coordinators and primary care professionals. All professionals were asked to complete a questionnaire for each user assisted on a predetermined day, with notes of some sociodemographic variables (age, gender, origin, education), as well as and health information (diagnosis, complaint or health problem). Data were collected from July to December 2011 in one single day for each health team.

Before conducting the research, a pilot study was conducted on a randomly selected area with the aim of testing the instruments for data collection and the proposed methodology. No adjustments to the data collection instruments were required.

For data analysis, instruments that were incorrectly or illegibly filled, as well as those by users coming from municipalities outside the predetermined region, were excluded. Data were analyzed using the SPSS software, version 16.0. All complaints and health problems recorded were classified according to the International Classification of Primary Care, second version (ICPC-2), a procedure performed by a single person previously qualified in order to avoid distortions of classification. The proportions of diagnoses, complaints and health problems in different systems (chapters if ICPC-2) were compared between genders using the χ^2 test, assuming a significance level of 5% ($p < 0.05$).

All ethical aspects were observed, and the project was previously approved by the Research Ethics Committee of Universidade Estadual de Montes Claros (Protocol no. 2314/2010). Interviews were conducted with the permission of the municipal managers and workers in family health teams and all respondents, in the context of teams from the Northeast macroregion of Minas Gerais, upon signature of an informed consent. There was no conflict of interest for conducting the study.

RESULTS

Of the 268 teams registered in the region, 64 were excluded because the managers and/or coordinators did not effectively support or refused to conduct the data collection in their municipalities. Thus, data from 204 family health teams were collected. In total, 17,988 people participated in the study, 10,855 (60.3%) were females and 7,133 (39.7%) were males. Of these, 1,662 (9.2%) corresponded to care by physicians, 2,530 (14.1%), care by nurses and 13,796 (76.7%) corresponded to visits and meetings with CHA. The reported morbidity was divided into 'diagnoses', when the treatment was given by doctors, in 'complaints or reasons for visits', when the treatment was carried out by nurses and 'health problems' when the data resulted from meetings with community health agents during home visits. The main characteristics and patterns of morbidity are presented in Tables 1 to 3, according to the type of professional from the FHS and chapters of ICPC-2. Twenty-five forms were excluded due to illegibility.

Among doctor visits (Table 1), a higher prevalence was observed in females (67.6%) who were in the 40-59 years old age range (31.9%). Among the consultations recorded by physicians, 93 people (5.6%) did not receive diagnosis after consultations. The most common diagnoses were related to pathologies from chapters of the circulatory system (n = 253; 15.2%), diseases of the musculoskeletal system (n = 225; 13.5%) and digestive system diseases (n = 202; 12.1%).

Table 2 presents the main characteristics and complaints/reasons for visits of adult patients assisted by FHS nurses. A greater proportion of visits to the younger population was observed, with a prevalence of the 20-39 years old age range (n = 1,048; 41.4%). In this group, women accounted for the highest number of visits (n = 1,870; 73.9%). Schooling was also assessed for this population, which identified that the majority of the care was given to people who had not completed primary school.

The main complaints were related to the chapter of "general and non-specific causes," totaling 590 visits (23.3%), followed by complaints in the chapter of female genital tract, with 445 visits (17.6%), and 433 visits due to pregnancy or family planning (17.1%).

Table 1. Main characteristics and diagnoses of patients assisted by physicians of the Family Health Strategy in the northeastern macroregion of Minas Gerais, Brazil, 2011.

Variables	Males		Females		p-value*
	n	%	n	%	
Age (years)					
11 – 19	66	12.2	137	12.2	
20 – 39	144	26.7	338	30.1	
40 – 59	163	30.2	368	32.8	
≥ 60	166	30.8	280	24.9	
Origin					
Urban	328	60.9	684	60.9	
Rural	200	37.1	432	38.5	
No Information	11	2.0	7	0.6	
Main chapters of ICPC-2					
K - Circulatory System	74	13.7	179	15.9	0.270
L - Musculoskeletal System	74	13.7	151	13.4	0.935
D - Digestive System	78	14.5	124	11.0	0.055
R - Respiratory System	43	8.0	80	7.1	0.601
T - Endocrine, metabolic and nutritional	32	5.9	85	7.6	0.265
S - Skin	45	8.3	54	4.8	0.006
A - General and unspecified	41	7.6	52	4.6	0.018
X - Female genital apparatus, including breasts	0	0.0	87	7.7	NA
P - Psychological	30	5.6	51	4.5	0.430
W - Pregnancy and Family Planning	0	0.0	78	6.9	NA
N - Nervous System	25	4.6	45	4.0	0.639
U - Urinary System	18	3.3	48	4.3	0.436
H - Ears	8	1.5	16	1.4	0.901
B - Blood, blood-forming organs and lymph	5	0.9	15	1.3	0.636
Y - Male genital apparatus	17	3.2	0	0.0	NA
F - Eyes	6	1.1	8	0.7	0.401
No diagnosis	43	8.0	50	4.5	0.005

NA: not applicable.
*χ^2 test or Fisher's exact test.

Table 3 presents the main characteristics and health problems referred to CHA by FHS users. There was a predominance of people with low education, including 2,542 (18.4%) illiterate individuals. Health problems reported refer to those presented in the 15 days previous to the data collection. Among the people interviewed by the CHA, 3,338 (24.2%) reported some complaint or health problem in the previous 15 days. Most respondents comprised a younger population, aged between 20 and 39 years (33.7%),

Table 2. Main characteristics and complaints of patients assisted by nurses of the Family Health Strategy in the northeastern macroregion of Minas Gerais, Brazil, 2011.

Variables	Males		Females		p value*
	n	%	n	%	
Age (years)					
11 – 19	74	11.2	225	12.0	
20 – 39	185	28.0	863	46.1	
40 – 59	205	31.1	463	24.8	
≥ 60	196	29.7	319	17.1	
Origin					
Urban	380	57.6	1146	61.3	
Rural	268	40.6	693	37.1	
No Information	12	1.8	31	1.7	
Education					
Illiterate	159	24.1	295	15.8	
Primary education - incomplete	277	42.0	717	38.3	
Primary education - complete	92	13.9	287	15.3	
Secondary education - incomplete	57	8.6	210	11.2	
Secondary education - complete	56	8.5	301	16.1	
Higher education	3	0.5	39	2.1	
No Information	16	2.4	21	1.1	
Main chapters of ICPC-2					
A - General and unspecified	220	33.3	370	19.0	0.000
X - Female genital apparatus, including breasts	00	0.0	445	24.0	NA
W - Pregnancy and Family Planning	00	0.0	433	23.4	NA
K - Circulatory System	138	20.9	156	8.4	0.000
S - Skin	79	12.0	69	3.7	0.000
D - Digestive System	48	7.3	77	4.2	0.002
L - Musculoskeletal System	40	6.1	74	4.0	0.033
T - Endocrine, metabolic and nutritional	35	5.3	77	4.2	0.245
R - Respiratory System	32	4.8	59	3.2	0.059
N - Nervous System	26	3.9	40	2.1	0.019
P - Psychological	18	2.7	30	1.6	0.098
U - Urinary System	05	0.7	22	1.2	0.496
Y - Male genital apparatus	14	2.1	00	00	NA
Others	05	0.7	18	0.9	NA

NA: not applicable.
*χ^2 test or Fisher's exact test.

being mostly women (57.0%). Regarding complaints/health problems recorded by the CHA, the main ones refer to the chapter of the respiratory tract (n = 518; 15.5%), musculoskeletal system (n = 493; 14.8%) and cardiovascular system (n = 449; 13.5%).

Table 4 presents the main diagnoses, health complaints and problems assigned to users in the study in each system or chapter of ICPC-2.

Table 3. Main characteristics and health problems referred to community health agent by patients assisted by the Family Health Strategy teams in the northeastern macroregion of Minas Gerais, Brazil, 2011.

Variables	Males		Females		p-value
	n	%	n	%	
Age (years)					
11 – 19	1198	20.2	1391	17.7	
20 – 39	1973	33.2	2682	34.1	
40 – 59	1554	26.2	2024	25.7	
≥ 60	1209	20.4	1765	22.4	
Education					
Illiterate	999	16.8	1543	19.6	
Primary education - incomplete	3317	55.9	3724	47.4	
Primary education - complete	322	5.4	395	5.0	
Secondary education - incomplete	282	4.8	440	5.6	
Secondary education - complete	748	12.6	1295	16.5	
Higher education	90	1.5	232	3.0	
No Information	176	3.0	233	3.0	
Main chapters of ICPC-2*					
R - Respiratory System	191	16.3	327	15.1	0.388
L - Musculoskeletal System	174	14.8	319	14.7	0.967
K - Circulatory System	166	14.2	283	13.1	0.404
D - Digestive System	132	11.3	267	12.3	0.396
A - General and unspecified	141	12.0	243	11.2	0.519
N - Nervous System	115	9.8	248	11.4	0.164
P - Psychological	53	4.5	80	3.7	0.282
U - Urinary System	40	3.4	90	4.2	0.335
S - Skin	48	4.1	57	2.6	0.027
T - Endocrine, metabolic and nutritional	38	3.2	62	2.9	0.611
X - Female genital apparatus, including breasts	0	0.0	71	3.3	NA
H - Ears	27	2.3	34	1.6	0.169
F - Eyes	26	2.2	31	1.4	0.125
W - Pregnancy and Family Planning	0	0.0	38	1.8	NA
B - Blood, blood-forming organs and lymph	5	0.4	15	0.7	0.474
Y - Male genital apparatus	15	1.3	0	0.0	NA
Z - Social problems	1	0.1	1	0.0	1.000

*Only people who reported any health problems in the past 15 days (n = 3338).
NA: not applicable.

Table 4. Main diagnoses, health problems and complaints assigned to patients assisted by the Family Health Strategy teams in northeastern macroregion of Minas Gerais, Brazil, 2011.

Chapters of ICPC-2	n	%
Records by doctors		
Circulatory system (n = 253)		
K85/K86: Hypertension	230	90.9
K95: Varicose veins in the lower limbs	6	2.4
K91: Sequel of stroke	4	1.6
Others	13	5.1
Musculoskeletal system (n = 225)		
L03: Low back pain	98	43.6
L18/L19/L20: Unspecified muscular signs and symptoms	46	20.4
L14 a L17 e L29: Signs and symptoms in the lower limbs and other nonspecific	35	15.6
Others	46	20.4
Digestive System (n = 202)		
D96: Unspecified parasitosis	86	42.6
D87: Gastritis	43	21.3
D01/D02: Abdominal pain	40	19.8
Others	33	16.3
Records by nurses		
General and unspecified (n = 590)		
A30: Exams/checkups	259	43.9
A62: Administrative procedures	66	11.2
A03: Fever	62	10.5
A11: Chest pain	62	10.5
A04: Malaise and fatigue	60	10.2
Others	81	13.8
Pregnancy and Family Planning (n = 445)		
W 78: Prenatal	320	71.9
W 14: Family Planning	111	24.9
W 18: Puerperium	14	3.1
Female genital apparatus/Breasts (n = 433)		
X46: Pap test with APS professional	361	83.4
X05 a X09: Menstruation disorders	29	6.7
X14: Leukorrhea	19	4.4
Others	24	5.5
Records by CHA		
Respiratory tract (n=518)		
R80: Flu	291	56.2
R78: Bronchitis	68	13.1
R74: Problems related to the throat	67	12.9
R75: Sinusitis	60	11.6
Others	32	6.2
Musculoskeletal system (n=493)		
L01/L02/L03: Problems of the spine	200	40.6
L18/L19/L20: Muscle and members pain	187	37.9
L29: Musculoskeletal trauma and other non-specific manifestations	40	8.1
Others	66	13.4
Circulatory system (n=449)		
K85/K86: Hypertension	375	83.5
K29: Unspecified heart problems	38	8.5
Others	36	8.1

DISCUSSION

This study characterized the profile of reported morbidity by FHS users in the Northeast macroregion of Minas Gerais and, although the demand for medications and immunizations was not considered, it helped identify the main health problems that reach primary care teams in the region studied. The recorded results revealed the main diagnoses of people assisted by the medical teams evaluated, stressing the importance of cardiovascular (especially hypertension), musculoskeletal (especially back pain) and digestive tract (especially intestinal parasites) diseases, which together account for over 40% of consultations. Respiratory and endocrine disorders also represent important causes of morbidity. These results are different from those observed in the study by Gusso[11], who pointed out, in the distribution of morbidity by chapters of ICPC-2, cardiovascular diseases, general and nonspecific complaints and respiratory diseases as the three main groups of most frequent causes. However, a broader analysis of the most frequent problems identified in this study allows greater similarity, since most referred chapters coincide with this study. The work by Gusso is the most recent and comprehensive national study of the demand in primary care, although it was restricted to just one city[11]. Other national studies are restricted to the characterization of the demand for a single unit[14], of specific groups[15], or are older studies[16].

Even though the morbidity patterns are highly sensitive to social, environmental and economic contexts[17], it is noteworthy that international studies also point to circulatory diseases[4,18], respiratory diseases[4,7,18], musculoskeletal problems[4,7] and disorders of the digestive system[7,18] as their biggest demands, which is consonant with the results of this study. It is natural to assume, therefore, that these are common demands for doctors of primary care services.

Complaints or reasons for visits registered by nurses highlighted mainly general and non-specific signs and symptoms consultations relating to women's health. Probably, the highlight observed for general and non-specific signs and symptoms are reflecting the welcoming and managerial role of the nursing professional[19]. Generally, this professional takes the coordination of care in primary health units and ultimately serves as a reference for users in many of their visits to health facilities. It is also important to highlight that a high proportion of patients without a definite diagnosis, or even without a target system defined, is common in primary care[11]. The visits related to women's health are also compatible with the role of the FHS nurse, who, traditionally, in the organization of care activities, shares the activities of cervical cancer preventive examinations, monitoring of risk pregnancies and guidance for family planning with the doctors[20].

Regarding the records of CHA, it is worth noting that the problems most frequently reported by users correspond to a mixture of the main groups of problems or complaints

reported by doctors and nurses. The top five health problems recorded by CHA account for over 60% of all reported problems. This trend, of a few diagnoses representing an important contingent of demand in primary care, has been reported in other studies[4,18]. This finding underscores the importance of using ICPC-2 in categorizing problems assisted in primary care. Codes can facilitate the communication of data within the same team and the exchange of information between FHS teams.

ICPC-2 works with a simple coding system on two levels: the first defines the organic system (represented by 17 chapters) and the second defines seven components (represented by numbers), that discriminate: (1) complaints and symptoms, (2) diagnostic and preventive screening, (3) medications, treatments and therapeutic procedures, (4) results of examinations, (5) administrative component, (6) follow-up and other reasons for consultation and (7) diagnoses and diseases[6,7]. There is also the possibility of inclusion of gravity in the code, which broadens slightly the complexity of the classification. Naturally, the same health problem can be classified in different ways, according to the perception of the health care professional who performs the encoding, their degree of certainty about the 'diagnosis' and their familiarity with the coding process. Different encodings for the same episode of care in primary care does not imply inadequacy of the coding system and does not affect the recognition of the morbidity profile of a population group[8]. A recent national study reported good interobserver reliability using the ICPC-2, which indicates a good performance of the classification code for reasons of care in primary care, even from logs in medical records[21]. Other aspects of the classification tend to be better studied from computerized analyses, which is still not a reality in the country. It is worth noting that although ICPC-2 is used in several countries[4,7,18], its simplification process still suffers criticism, and some authors suggest it is inadequate to meet all the complexity of clinical problems[7,22].

In the present study, although there was zeal in putting a single person to classify responses recorded, the coding was done from data of the survey form and not directly from the contact with patients, a fact that undermines the diagnostic accuracy. However, the authors believe that the definition of the main chapters and major health problems within each chapter is less susceptible to coarse errors and sufficient to characterize the demand, as it is recorded in other international studies[4,7]. The finding that up to 60% of the main health problems reported by users of the FHS teams are restricted to only a few chapters of ICPC-2 can assist the process of organizing the demand for these teams and alert health managers about the importance of training of health professionals, more oriented towards those needs of the assisted population.

The official system for monitoring the actions of the FHS, SIAB, although presenting has some positive aspects regarding the user interface and elaboration of reports, has some limitations. The system does not allow the knowledge of the morbidity profile and has not been able to achieve its goals. Some studies point out that the system does not offer a critical analysis of morbidity and suffers no quantitative or qualitative

critic of their analysis process, often serving just as a bureaucratic instrument for the operation of teams[5,23].

The lack of broader or more recent national data on morbidity recorded by the FHS teams affects more detailed analysis of the observed data. Surely the lack of a computer system is a limiting factor for such studies, unlike what happens in other countries[8].

In general, the structure of the population assisted by teams evaluated is similar to what was observed in other studies that, highlighting higher prevalence of women and younger individuals in the demand of primary care[18]. Although it was not the specific objective of this study to conduct a deeper analysis from the point of view of genders, it is important to note that, in the records of all professional categories, women showed more complaints or health problems.

In relation to medical consultations, there was homogeneity for different diagnoses among men and women, except for skin diseases and general and non-specific complaints, which were more common for men. In nursing records, in addition to the two chapters indicated, men also had higher proportions of complaints about the problems of the circulatory, digestive, nervous and musculoskeletal systems. However, considering the high demand for nursing regarding the health status of women (gynecological problems related to pregnancy and family planning), it is unreasonable to establish any inference about these differences. In the records of CHA, only the skin diseases were more prevalent among men, with no records of other gender differences in the remaining chapters of ICPC-2. Thus, in general, small differences are observed in the registration of morbidity among men and women, which is consistent with the observation by Laurenti et al[24]. These authors observed that, in the evaluation of morbidity between genders, measured by hospital admissions and excluding causes related to pregnancy and childbirth, there is a balance between the number of male and female hospitalizations, with a similar distribution of reasons for hospitalization, except for external causes, mental and behavioral disorders.

The similarity of some results of this study with results from international studies, especially in relation to the prevalence of circulatory (with emphasis on hypertension), musculoskeletal (with emphasis on low back pain) and respiratory (with emphasis on upper airway infections) problems, stresses the universality of these problems and the accelerated nosological/epidemiological transition experienced by the country[4,7]. Goldbaum et al. had already highlighted, in a study carried out in São Paulo, that, for the population covered by the FHS, social aspects (income and education) do not cause significant differences in the use of and demand for health care services, indicating that the expansion of health care coverage may be contributing to greater equity in these conditions[25]. In addition to the similarities, the differences should also be pointed as noticeable and worthy of continuous analyses. The high proportion of digestive diseases (with emphasis on intestinal parasites) denotes the persistence of inadequate living conditions. The low prevalence of conditions of the chapter of psychological

problems such as anxiety, depression, abuse of alcohol and other drugs may denote the invisibility of these issues for the health team or the difficulty of recognition or management of these issues. Often, patients with mental health problems present nonspecific complaints or other physical problems, which are more easily identified by health teams. These represent just some of the differences that reinforce the need for regular surveys, with the potential to reveal, in deeper approaches, the role of socioeconomic inequalities on the health-disease process[17]. In fact, all of the observed results indicate the relevance of population-based studies on morbidity. For Barros, this would be essential for the generation of information necessary for defining new intervention policies and the evaluation of their impact on health[10]. Population-based health surveys are important for understanding the reality of conditions occurring in the population, ranging from the well defined to uncharacteristic symptoms or signs, which often may disappear without any interference[16].

It is important to note that the region covered in this study is one of the poorest in the country, with low socioeconomic indicators. An indirect measure of this scenario is reflected in the high percentage of people observed who are illiterate or with low education. This aspect strongly influences the disease burden and should not be overlooked. In a health survey in greater São Paulo, Barros and colleagues found that there was a significant impact of social inequality on the presence of chronic conditions reported, and the less educated segment of the population had 62% higher prevalence of chronic diseases, when compared to the most educated segment[10].

The results of this study should be interpreted in light of some limitations. The fact that the research was carried out in a single day is one of the limiting factors, because some comorbidities may undergo seasonal effects (respiratory diseases are, for example, most common during the winter). The schedule of demand of health facilities (with groups of hypertensive patients, pregnant women, etc.) can also interfere with the results collected in a single day. However, the logistical difficulty of multiple collections and the fact that the methodology was already backed by the international literature were factors that enabled the selection of the strategy employed[12,13].

Another limitation identified was the low participation of the doctor, with a small quantity compared to the amount of municipalities participating in the study. This influenced the study negatively, because it complicated more comprehensive diagnostics results, as only doctors can provide the patient's diagnosis.

Although the data collection instrument is easy to assimilate, with few variables, and its application occurred after training, the multiplicity of actors involved in the data collection can also be a variable that jeopardizes the validity of the final results. This is a limitation that is inherent to the method due to the virtual impossibility of a limited number of interviewers in similar studies. To compensate, even partially, its limitations, this study recorded a high contingent of participants not observed in the national literature.

CONCLUSIONS

The characteristics of primary care and the relevance it has taken in Brazil in recent years highlight the need for further research in this area. For greater effectiveness of the model assumed in the country, it is desirable that primary care determine the work of other levels of the health system, addressing the most common problems in the community and integrating the attention when there are several health problems. In this context, the morbidity and evaluative studies in the FHS services may provide the basis for strengthening primary care.

The results allowed the knowledge of the health needs of people assisted by the FHS teams, setting up a pattern of morbidity in primary care for the area evaluated. The use of ICPC-2 proved to be useful and applicable to the context of family health teams and may represent an important tool for health managers. Indirectly, these data allowed a broader knowledge of the daily workload for teams evaluated in relation to major health problems. Results of similar studies should be used in the planning of activities and continuing education programs for workers in primary care.

REFERENCES

1. Paim J, Travassos C, Almeida C, Bahia L, Macinko J. The Brazilian health system: history, advances, and challenges. Lancet 2011; 377(9779): 1778-97.
2. Victora CG, Barreto ML, Carmo LM, Monteiro CA, Schmidt MI, Paim J, et al. Lancet Brazil Series Working Group. Health conditions and health-policy innovations in Brazil: the way forward. Lancet 2011; 377(9782): 2042-53.
3. Nunes APN, Barreto SM, Gonçalves LG. Relações sociais e autopercepção da saúde: Projeto Envelhecimento e Saúde Rev Bras Epidemiol 2012; 15(2): 415-28.
4. Minas M, Koukosias N, Zintzaras E, Kostikas K, Gourgoulianis K. Prevalence of chronic diseases and morbidity in primary health care in central Greece: an epidemiological study. BMC Health serv Research 2010: 252. Available at: http://www.biomedcentral.com/1472-6963/10/252
5. Silva AS, Laprega MR. Avaliação crítica do Sistema de Informação da Atenção Básica (SIAB) e de sua implantação na região de Ribeirão Preto, São Paulo, Brasil. Cad Saúde Pública 2005; 21(6): 1821-8.
6. WONCA (Organização Mundial dos Médicos da Família): Classificação internacional de atenção primária, CIAP-2, Sociedade Brasileira de Medicina da Família, Florianópolis, 2009.
7. Brueton V, Yogeswaran P, Chandia J, Mfenyana K, Modell B, Modell M, et al . Primary care morbidity in Eastern Cape Province. S Afr med J 2010; 100(5): 309-12.
8. Soler JK, Okkesb I, Woodc M, Lambertsb H. The coming of age of ICPC: celebrating the 21st birthday of the International Classification of Primary Care. Family Practice Advance. 2008; Available from: http://fampra.oxfordjournals.org/
9. Theme Filha MM, Szwarcwald CL, Souza Júnior PRB. Medidas de morbidade referida e inter-relações com dimensões de saúde. Rev Saúde Pública 2008; 42(1): 73-81.
10. Barros MBA. Inquéritos domiciliares de saúde: potencialidades e desafios. Rev Bras Epidemiol 2008; 11(Suppl 1): 6-19.
11. Gusso GDF. Diagnóstico de demanda em Florianópolis utilizando a Classificação Internacional de Atenção Primária: 2ª edição (CIAP-2). [Tese] USP: São Paulo; 2009.
12. Silva N, Mendis K. One-day general practice morbidity survey in Sri Lanka. Family Practice 1998; 15(4): 323-31.
13. Emmanuel SC, Tan BY, Chan KW. A one-day morbidity survey of outpatients. Singapore Fam Physician 1989; 15: 171-97.

14. Pimentel IRS, Coelho BC, Lima JC, Ribeiro FG, Sampaio FPC, Pinheiro RP, et al.Caracterização da demanda em uma Unidade de Saúde da Família. Florianópolis. Rev Bras Med Fam Comunidade 2011; 6(20): 175-81.
15. Silva DMPP, Tomanik EA. Morbidade referida por moradores ribeirinhos de Porto Rico, PR, Brasil. Rev Bras Enferm 2010; 63(3): 452-8.
16. Cesar CLG, Laurenti R, Buchala CM, Figueredo G M, Carvalho WO,Carantin CVS. Uso da Classificação Internacional de Doenças em inquéritos de saúde. Rev Bras Epidemiol 2001; 4(2): 120-9.
17. Szwarcwald CL, Leal MC, Gouveia GC, Souza WV. Desigualdades socioeconômicas em saúde no Brasil: resultados da Pesquisa Mundial de Saúde, 2003. Rev Bras Saúde Matern Infant 2005; 5(Suppl 1): S11-S22.
18. Gataa R, Ajmi TN, Bougmiza I, Mtiraoui A. Morbidity patterns in general practice settings of the province of Sousse, Tunísia. Pan African Med Journal 2009; 3:11. Available at: http://www.panafrican-med-journal.com/content/article/3/11/full
19. Ximenes Neto, FRG. Sampaio JJC. Gerentes do território na Estratégia Saúde da Família: análise e perfil de necessidades de qualificação. Rev Bras Enferm 2007; 60(6): 687-95.
20. Rodrigues EM, Nascimento RG, Araújo A. Protocolo na assistência pré-natal: ações, facilidades e dificuldades dos enfermeiros da Estratégia de Saúde da Família. Rev Esc Enferm USP 2011; 45(5): 1041-7.
21. Sampaio MMA, Coeli CAM, Alves MGM, Soares MF, Camargo Jr KR, Moreno AB. Confiabilidade interobservador da Classificação Internacional de Atenção Primária em uma unidade de atenção básica à saúde. Rev Bras Epidemiol. 2012; 15(2): 355-62.
22. Botsis T, Bassoe CF, Hartvigsen G. BMC Medical Informatics and Decision Making. 2010; 10:11. Available from: http://www.biomedcentral.com/1472-6947/10/11
23. Marcolino JS, Scochi MJ. Informações em saúde: o uso do SIAB pelos profissionais das Equipes de Saúde da Família. Rev Gaúch Enferm 2010; 31(2): 314-20.
24. Laurenti R, Jorge MHPM, Gotlieb SLD. Perfil epidemiológico da morbi-mortalidade masculina. Rev C S Col 2005; 10(1): 35-46.
25. Goldbaum M, Gianini RJ, Novaes HMD, César CLG. Utilização de serviços de saúde em áreas cobertas pelo programa saúde da família (Qualis) no Município de São Paulo. Rev Saúde Pública 2005; 39(1): 90-9.

Received on: 10/03/2012
Final version presented on: 05/01/2013
Accepted on: 06/05/2013