ORIGINAL ARTICLE

# Health education and promotion actions among teams of the National Primary Care Access and Quality Improvement Program, Rio Grande do Sul state, Brazil\*

doi: 10.5123/S1679-49742018000200019

Marciane Kessler¹ - ② orcid.org/0000-0002-4778-8224
Elaine Thumé¹
Suele Manjourany Silva Duro¹
Elaine Tomasi²
Fernando Carlos Vinholes Siqueira³
Denise Silva Silveira²
Bruno Pereira Nunes¹
Pâmela Moraes Volz¹
Amanda Amaral dos Santos¹
Sandra Mattos França¹
Janaina Duarte Bender¹
Tamires Piccinini⁴
Luiz Augusto Facchini²

<sup>1</sup>Universidade Federal de Pelotas, Departamento de Enfermagem, Programa de Pós-Graduação em Enfermagem, Pelotas, RS, Brasil <sup>2</sup>Universidade Federal de Pelotas, Departamento de Medicina Social, Programa de Pós-Graduação em Epidemiologia, Pelotas, RS, Brasil <sup>3</sup>Universidade Federal de Pelotas, Escola Superior de Educação Física, Pelotas, RS, Brasil

<sup>4</sup>Universidade Federal de Pelotas, Faculdade de Enfermagem, Pelotas, RS, Brasil

## Abstract

**Objetivo**: to investigate the provision of health education and promotion actions in primary care, and their association with demographic characteristics and Family Health Strategy (FHS) coverage in Rio Grande do Sul state, Brazil. **Methods**: this is a cross-sectional study conducted with 816 teams that adhered to the 2012 Primary Care Access and Quality Improvement Program. **Results**: the most frequent actions were directed towards people with diabetes (91.2%), hypertension (90.8%) as well as antenatal and postnatal care (84.6%). The least frequent were directed to wards crack, alcohol and other drug users (32.4%), anxiolytic/benzodiazepine users (20.3%), people with tuberculosis (31.4%) and leprosy (21.0%). The greatest provision of health promotion and education actions occurred in smaller municipalities and with greater Family Health coverage. **Conclusion**: actions aimed at the reproductive period and chronic morbidities were the focus of primary care. FHS implementation strengthens health promotion.

Keywords: Primary Health Care; Health Promotion; Health Education; Health Evaluation; Cross-Sectional Studies.

\*Study funded by the Department oh Primary Health Care of the Secretariat of Health Assistance of the Ministry of Health. Partnership National Health Foundation/Federal University of Pelotas No. 151/2011.

#### Correspondence:

Marciane Kessler - Av. Duque de Caxias, 250, 3° andar, Fragata, Pelotas, RS, Brasil. CEP: 96030-002. E-mail: marciane.kessler@hotmail.com



# Introduction

Health promotion occurs when the community acquires the necessary knowledge to improve their quality of life and health, including greater participation of individuals in the control of this process. The concept of health promotion gathers determinants related to behavioral and lifestyle aspects as well as the social and environmental conditions in which people live and work.

Two of most important references in terms of health promotion are the Lalonde Report, published in 1974 in Canada, and the Ottawa Charter, in 1986, the result of the First International Conference on Health Promotion, <sup>1</sup> signing it as a proposal to be incorporated as a guideline in the formulation of public health policies. <sup>3</sup> These movements have influenced the health reform and the creation of the Brazilian National Health System (SUS) in Brazil, which has adopted Primary Health Care (PHC) to implement intersetorial actions to promote health and prevent diseases and conditions. <sup>2,4</sup>

Health promotion occurs when the community acquires the necessary knowledge to improve their quality of life and health, including greater participation of individuals in the control of this process.

In Brazil, the expansion of PHC occurs primarily through the Family Health Strategy (FHS), which performs positively in relation to the traditional model, 4.5 since it operates in a delimited territory, with ascription and longitudinal monitoring of the population, 2 allowing universal access to guidelines on healthy lifestyles, and stimulating the prevention of chronic and communicable diseases.

However, regardless of the health care model, the prerogatives of the National Primary Health Care Policy should prevail in the organization of the care network and care processes, taking into account the principles and objectives of the 2014 National Health Promotion Policy. A population-based study carried out with adult individuals in 100 Brazilian municipalities in 2008 and 2009<sup>6,7</sup> and another carried out with national primary care teams in 2012<sup>8</sup> identified low and / or unsatisfactory prevalence of practices aimed at health promotion. In addition, there are few Brazilian studies

that evaluate health promotion actions according to the assistance model or FHS coverage.

The objective of this study is to investigate the offer of education and health promotion actions in primary health care and its association with demographic factors and coverage of family health strategy in Rio Grande do Sul, Brazil.

#### Methods

This is a cross-sectional study carried out in health services that used the database of the external evaluation of the Program for Improving Access and Quality of Primary Care (PMAQ-AB) in Rio Grande do Sul. In 2010, the state had 497 municipalities and an estimated population of 11,247,972 inhabitants. According to information from the National Register of Health Facilities, 2,686 Primary Health Care Teams (PHCT) were registered in 2012. The evaluation was carried out by researchers from the Federal University of Pelotas (UFPel) and the Federal University of Rio Grande do Sul (UFRGS), in partnership with the Department of Primary Health Care of the Ministry of Health (DAB/MS), from June to October 2012.

The instrument used in the external evaluation had four modules: Module I (infrastructure, materials, inputs and medicines of the Primary Health Care Unit –PHU); Module II (working process of the team and organization of the assistance for the user); Module III (users' satisfaction and perception regarding access to and quality of the health service); and Module IV (complementary information to the other modules answered online by local managers).<sup>10</sup>

The outcome "education and health promotion actions" was investigated through independent questions (Figure 1) and dichotomous answers (yes or no). The question *Does the team offer education and health promotion actions?* was directed to each specific action detailed in Figure 1. These are part of Module II,<sup>10</sup> along with the profile characteristics of the professionals and the PHCT and the actions they developed in the units evaluated (Figure 1).

The exposure variables used for association with the offer of education actions and health promotion were the following: size of the municipality<sup>9</sup> (up to 10,000 inhabitants, from 10,001 to 30,000, from 30,001 to 100,000, 100,001 or more inhabitants); Municipal Human Development Index (MHDI),<sup>11</sup> ranked in the

Axis	Variables	Questions from the PMAQ-AB <sup>b</sup> questionnaire						
	Profession	What is your profession? Doctor Nurse Surgeon(s) - dentist						
Information about the interviewee	Coordenationa	Are you a team coordinator?						
	Team performance	How long have you been working in this Primary Care Team? Less than 1 year Years Do not know / did not answer						
Modalities that make up the Basic Attention Team	Basic Attention Team	What kind of team? Family Health Team - With Oral Health Family Health Team - Without Oral Health Basic care team (parameterized) - with oral health Basic care team (parameterized) - without oral health						
Complementary training of the professionals of the Basic Attention Team	Complementary training <sup>a</sup>	Do you have or are you undergoing further training?						
		Does the team offer education and health promotion actions?						
Health promotion	Education and health promotion actions <sup>a</sup>	If so, they are directed to: Women (cancer of the cervix and breast); Family planning; Pregnant women and postpartum women (breastfeeding); Men; Seniors; Healthy eating; Prevention and treatment of systemic arterial hypertension; Prevention and treatment of diabetes mellitus; Performs groups with the objective of supporting self-care for chronic diseases; Performs social media strategies and education programs related to sexual health and reproductive health; Tuberculosis; Leprosy; It conducts focus groups on communicable diseases (dengue, tuberculosis, leprosy, human immunodeficiency virus, trachoma), according to the need of the territory; Prevention and treatment of the use, abuse and dependence arising from the use of crack, alcohol and other drugs; Prevention and treatment of the use, abuse and dependence of anxiolytics and benzodiazepines;						
		Does the team encourage and develop in the Basic Health Unit and / or in the territory corporal practices and physical activity? Corporal practices? Physical activity?						

Figure 1 – Operationalization of the variables related to the characteristics of the coordinator of PHU or its representative, health professionals and the primary health care team, as well as the education and health promotion actions offered, PMAQ, 2012

50 percentile (0.666 to 0.802, 0.803 to 0.870) due to the small variation in the HDI range among the municipalities of the state; and population coverage of FHS12 (up to 30%, from 30% to 64.9%, and 65% or more).

The questionnaire was applied at the PHU, on a date agreed with the municipal managers, and answered by a physician, nurse or dentist, not necessarily exercising the role of coordinator of the team. The data were collected in electronic forms using tablets and automatically transferred to the national database of the Ministry of Health.

Descriptive analyses were performed, with the variables being expressed with absolute and relative frequencies. There was an association between education and health promotion actions with exposure

a) Dichotomous variables. b) PMAQ-AB: Program for Improving Access and Quality of Primary Care.

variables. The analysis of the associated factors was performed by calculating the Prevalence ratio (PR) and its respective 95% Confidence intervals (95%CI), using Poisson regression. Stata software version 12.0 was used for data analysis.

The research project was approved by the Research Ethics Committee of UFPel, through protocol No. 38/2012, following the ethical precepts of Resolution of the National Health Council No. 466/2012. For the use of the database, authorization was requested from the study coordinator at UFPel. The authors declare that there are no conflicts of interest regarding the subject of study.

## Results

The research instruments were applied in 816 teams, in 336 municipalities, and were answered mainly by nurses (89.7%), followed by physicians (7.4%) and dentists (2.9%). The team coordinators accounted for 82.4% of the total interviews. Almost two thirds of the respondents (62.8%) had been working the service for less than three years and only 11.4% had ten years or more. Among the models of attention, there was predominance of FHS with oral health (66.5%), followed by FHS without oral health (31.0%); 83.9% of the professionals already had or were in some complementary training. There was the following frequency distribution of the teams evaluated, according to the population size of the municipality: 33.9% up to 10,000 inhabitants; 21.0% between 10,001 and 30,000 inhabitants; 21.6% between 30,001 and 100,000 inhabitants; and 23.5% with 100,001 or more inhabitants. According to the IDHM, 50.1% of municipalities had an index between 0.666 and 0.8020, and 47.7% had FHS coverage equal to or greater than 65.0%.

Figure 2 shows the proportion of teams that offered education and health promotion actions. Higher frequencies were found for actions aimed at the prevention and treatment of diabetes mellitus and systemic arterial hypertension at prenatal and puerperium - breastfeeding and prevention of cervical and breast cancer. In contrast, lower frequencies were directed to prevention and treatment of use, abuse and dependence from crack, alcohol and other drugs and anxiolytics / benzodiazepines, tuberculosis and leprosy.

The proportion and PR of the PHCT that offered health actions, stratified by population size, HDI and FHS coverage, are presented in Tables 1, 2 and 3.

The analysis showed that, as the population size of the municipalities increases, the proportion of PHCTs that organize actions directed to the health of the man, to the use, abuse and dependence of crack, alcohol and other drugs and of anxiolytics/benzodiazepines, as well as for the prevention of leprosy. The proportion of teams that offered the other health actions did not present a significant difference according to the population size of the municipalities (Tables 1, 2 and 3).

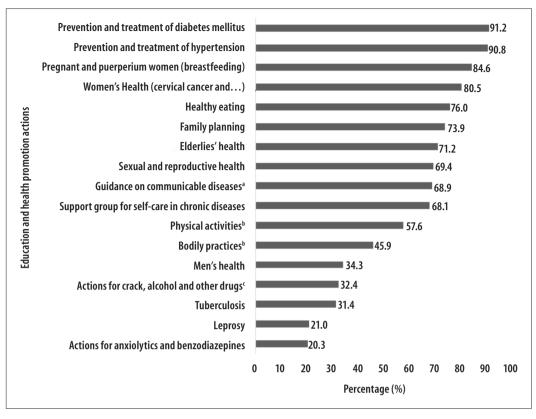
Municipalities with higher HDI were less likely to perform actions directed to use, abuse and dependence on crack, alcohol and other drugs, compared to municipalities with lower HDI. However, the probability that the teams offer actions aimed at the prevention of tuberculosis is 23% higher in the municipalities with the highest HDI; and with values very close to significance, these municipalities also present a greater probability of actions for healthy eating (Table 1 and 3).

Residing in municipalities with FHS coverage of 65% or more, compared to municipalities with FHS coverage of less than 30%, increased by 1.6 (95%CI 1.24; 2.08) the proportion of teams that offer shares for the health of man; 2.1 and 2.3 times for the use, abuse and dependence of crack, alcohol and other drugs, and for anxiolytics and benzodiazepines, respectively; and 2.9 times for leprosy prevention. The proportion of teams that reported offering the other health actions did not present a significant difference according to the FHS coverage (Tables 2 and 3).

## Discussion

The most frequent education and health promotion activities were focused on the prevention of diabetes mellitus and hypertension, on the prenatal and puerperium follow-up - breastfeeding and prevention of cervical and breast cancer. There is a need to increase the proportion of teams that perform actions directed to the use and dependence of licit, illicit and anxiolytic / benzodiazepine drugs, and the prevention of tuberculosis and leprosy. The offering of actions was higher in the municipalities with smaller population size and with higher FHS coverage.

According to the teams, the most offered actions were those directed to the prevention and treatment



a) Dengue, human immunodeficiency virus, tuberculosis, leprosy, trachoma.

Figure 2 – Proportion of Primary Care Teams that offered education and health promotion actions, according to thematic axes, Rio Grande do Sul, 2012 (n=816)

of hypertension and diabetes, with 90.8% and 91.2%, respectively. Chronic conditions are increasingly prevalent among the Brazilian population. In the South of the country, the prevalence of hypertension was 22.9% in 2013, higher than the national average (21.4%), while the proportion of individuals with diabetes was 6.2% in the South and in the country. Management requires continuous and comprehensive care to prevent complications, such as the offer and adherence to treatment, guidelines on healthy living habits, self-care incentive, periodic exams, home visits, create link between professional and user, group education activities, 14 in addition to a thorough physical examination and psychological support.

One of the main strategies developed by the PHCT to promote the health of people with chronic diseases are self-care support groups. Developed by 68.9% of the teams surveyed, these actions have become a routine practice in basic care and can intensify health

education processes, facilitate the construction of links and promote self-care and adherence to treatment.<sup>15</sup> However, the participation in this activity is sometimes posed by professionals as a requirement or a barrier to access to certain services,<sup>15</sup> such as access to medication for hypertension and diabetes. In addition, when traditional, repetitive, and disease-oriented, group activities may discourage user participation.<sup>16</sup>

Considering that inadequate lifestyles are associated with the onset of chronic diseases,<sup>3</sup> it is up to the professionals to develop health promotion actions, encouraging healthy life habits, such as adequate food, physical activity practice and corporal practices. However, although 76% of the teams performed clarification on the importance of healthy eating, only half developed actions aimed at the practice of physical and corporal activities.

These results suggest that the provision of health care is focused on individuals with chronic problems

b) 29 losses.

c) Prevention and treatment of use, abuse and dependence.

Table 1 – Proportion (%) of Primary Care Teams that offered education and health promotion actions: PMAQ-AB external evaluation, Rio Grande do Sul, 2012

Women's health (cancer of the Health actions <u>cervix and breast</u> )		Pregnant women and postpartum women (breastfeeding)		Family planning		Sexual and reproductive health		Corporal practices <sup>b</sup>		Physical Activity <sup>b</sup>		I	Healthy eating	
	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)
Population size														
Upto 10,000	80.1	1.00	88.8	1.00	72.2	1.00	71.1	1.00	44.5	1.00	53.2	1.00	76.5	1.00
10,001 to 30,000	82.5	1.03 (0.94;1.13)	79.5	0.89 (0.72;0.98)	72.5	1.00 (0.89;1.13)	62.6	0.88 (0.77;1.01)	47.6	1.07 (0.87;1.32)	57.9	1.09 (0.92;1.29)	79.5	1.04 (0.94;1.15)
30,001 to 100,000	77.3	0.96 (0.87;1.06)	84.1	0.95 (0.88;1.02)	73.9	1.02 (0.91;1.15)		0.99 (0.88;1.11)			66.5			
100,001 or more	82.3	1.03 (0.94;1.12)	83.3	0.94 (0.87;1.01)	77.6	1.07 (0.97;1.19)	71.9	1.01 (0.90;1.14)	40.4	0.91 (0.73;1.13)				
P value <sup>a</sup>		0.871		0.141		0.194		0.659		0.719		0.266		0.274
WHDI														
0,666 to 0,8020	81.2	1.00	85.6	1.00	75.1	1.00	69.2	1.00	46.7	1.00	55.4	1.00	73.1	1.00
0,8030 to 0,8700	79.9	0.98 (0.92;1.05)	83.5	0.98 (0.92;1.04)	72.7	0.97 (0.89;1.05)	69.5	1.00 (0.92;1.10)	45.1	0.97 (0.83;1.12)	59.7	1.08 (0.96;1.22)	78.9	1.08 (0.99;1.17)
P value <sup>a</sup>		0.634		0.421		0.448		0.916		0.657		0.222		0.055
Completeness of FH	IS													
Upto 30%	79.3	1.00	82.1	1.00	75.9	1.00	70.8	1.00	38.2	1.00	52.0	1.00	72.2	1.00
30 to 64,9%	79.1	1.00 (0.91;1.10)	81.9	1.00 (0.91;1.09)	69.8	0.92 (0.82;1.03)	68.4	0.97 (0.85;1.10)	50.7	1.33 (1.06;1.65)	64.3	1.24 (1.05;1.46)	76.7	1.06 (0.95;1.19)
65% or more	82.0	1.03 (0.95;1.12)	87.4	1.06 (0.99;1.15)	75.1	0.99 (0.90;1.09)	69.2	0.98 (0.88;1.09)	47.3	1.24 (1.00;1.52)		1 10		1 00
P value <sup>a</sup>		0.369		0.060		0.984		0.728		0.071		0.441		0.163

a) Qui-square for heterogeneity or linear trend.

and changes in inappropriate life habits, rather than health promotion in a healthy population.<sup>17</sup> Studies<sup>6,7</sup> conducted in Brazil found that adult individuals with chronic diseases ( hypertension, and diabetes) and overweight were given more guidance on healthy eating and physical activity practice than individuals without chronic diseases or overweight.

In this study, 71.2% of the teams offered actions to the elderly population, a practice that deserves investments. It should be noted that the aging index in Rio Grande do Sul - ratio between the number of elderly people aged 60 and over and those aged up to 15 years - was 65.4 in 2012, while in the country it was 44.7.18 Aging population has been increasing the prevalence of chronic diseases and disabilities, generating challenges for the health sector, such as the promotion of active aging and the guarantee of health care for the elderly.19 Thus, health promotion

actions aimed at healthy aging, and not summarized to the monitoring of chronicity.

It was identified a low proportion of teams that offered actions directed to the health of the man. Basic health care has privileged programmatic actions aimed at the health of women, children and the elderly, which does not favor attention to human health. <sup>20</sup> And, although men are vulnerable to illness, they do not seek basic health care services like women <sup>20</sup>, which can contribute to the higher mortality rate and lower life expectancy of men compared to women in the state and in the country. <sup>18</sup> Thus, a health policy was created for this population in 2008, in education approaches is still a challenge, although it is a priority strategy of the Ministry of Health. <sup>8</sup>

The results showed that the proportion of teams that referred to prenatal and puerperal actions, as well as the prevention of cervical and breast cancer, is

b) 29 Losses

c) Municipal Human Development Index.

PMAQ-AB: Program for Improving Access and Quality of Primary Care.

RP: Prevalence ratio.

<sup>95%</sup>CI: Confidence interval. FHS: Family Health Strategy.

Table 2 — Proportion (%) of Primary Care Teams that offered education and health promotion actions: PMAQ-AB external evaluation. Rio Grande do Sul. 2012

Health actions	Support for self- care for chronic diseases		Arterial hypertension		Diabetes mellitus		Health of the elderly		Health of the man		Actions for crack, alcohol and other drugs	
	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	%	(95%CI)
Population size												
Upto 10,000	63.9	1.00	88.5	1.00	89.2	1.00	71.1	1.00	42.2	1.00	39.4	1.00
10,001 to 30,000	73.1	1.14 (1.01;1.30)	94.7	1.07 (1.01;1.13)	94.2	1.06 (1.00;1.12)	72.5	1.01 (0.91;1.15)	36.3	0.86 (0.67;1.09)	34.5	0.88 (0.68;1.13)
30,001 to100,000	65.3	1.02 (0.89;1.18)	90.9	1.03 (0.96;1.09)	92.1	1.03 (0.97;1.10)	70.5	0.99 (0.88;1.12)	26.1	0.62 (0.47;0.82)	27.8	0.71 (0.53;0.94)
100,001 or more	72.4	1.13 (1.00;1.28)	90.6	1.02 (0.96;1.09)	90.7	1.02 (0.96;1.08)	70.8	0.99 (0.89;1.12)	28.7	0.68 (0.52;0.88)	24.5	0.62 (0.47;0.83)
P value <sup>a</sup>		0.137		0.555		0.619		0.870		< 0.001		< 0.001
MHDIb												
0,666 to 0,8020	65.8	1.00	90.7	1.00	91.0	1.00	71.9	1.00	34.7	1.00	35.7	1.00
0,8030 to 0,8700	70.5	1.07 (0.98;1.18)	90.9	1.00 (0.96;1.05)	91.4	1.00 (0.96;1.05)	70.5	0.98 (0.90;1.07)	33.9	0.97 (0.81;1.18)	29.0	0.81 (0.66;0.99)
P value <sup>a</sup>		0.147		0.921		0.822		0.667		0.807		0.042
Completeness of the Fl	HS											
Upto 30%	67.9	1.00	88.2	1.00	88.7	1.00	68.9	1.00	25.5	1.00	19.3	1.00
30 to 64,9%	74.0	1.09 (0.96;1.23)	94.0	1.07 (1.00;1.13)	94.4	1.06 (1.00;1.13)	71.2	1.03 (0.91;1.17)	31.2	1.22 (0.90;1.66)	30.2	1.56 (1.11;2.20)
65% or more	65.0	0.96 (0.85;1.08)	90.5	1.03 (0.97;1.09)	90.8	1.02 (0.97;1.08)	72.5	1.05 (0.94;1.17)	40.9	1.60 (1.24;2.08)	40.6	2.10 (1.55;2.85)
P value <sup>a</sup>		0.298		0.562		0.617		0.359		< 0.001		< 0.001

a) Chi-square for heterogeneity or linear trend.
b) Municipal Human Development Index.

high. In Rio Grande do Sul, the proportion of women who performed seven or more prenatal consultations was 71.1% in 2012, while the proportions of women who had undergone cervical cancer and breast cancer screening were of 80.4 and 58.6%, respectively, showing higher than the national average.18

It should be noted that, although there are structured health policies, such as prenatal care, with expanded coverage, quality is still compromised. In addition, puerperal care is not consolidated, since the first visit of women to postpartum health services, in the vast majority, aims at the health of the newborn, especially evaluation and vaccination. 21 The proportion of consultations of prenatal and cervical and breast cancer screening tests may have contributed to the state's infant and maternal mortality ratios in 2014, which were lower than the country's results. 22,23 However, reaching the Millennium Goals established by the end of 2015 for maternal mortality and breast cancer, <sup>22,23</sup> which requires greater investments in health education and health promotion actions.

It should be noted that the proportion of teams that offered actions aimed at family planning and sexual and reproductive health is lower than those that developed the actions referred to above. In Rio Grande do Sul, the integrality of care falls short of what is recommended by the Ministry of Health, since the practice of primary care professionals is aimed at assisting the pregnancypuerperal cycle and diseases. Basic care plays a key role in these actions; however, family planning often boils down to contraceptive methods, and aspects related to sexual and reproductive health such as information about sexuality, sexually transmitted diseases and conception are neglected.24

PMAQ-AB: Program for Improving Access and Quality of Primary Care.

PR: Prevalence ratio. 95%CI: Confidence interval.

FHS: Family Health Strategy.

Table 3 — Proportion (%) of Primary Care Teams that offered education and health promotion actions: PMAQ-AB external evaluation, Rio Grande do Sul, 2012

Health actions		or anxiolytics zodiazepines	Tube	erculosis	Le	prosy	Communicable diseases		
	<del></del> %	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	%	PR (95%CI)	
Population Size									
Upto10,000	23.8	1.00	32.1	1.00	29.6	1.00	71.1	1.00	
10,001 to 30,000	21.1	0.88 (0.62;1.26)	28.1	0.87 (0.65;1.17)	23.4	0.79 (0.57;1.10)	66.1	0.93 (0.82;1.02)	
30,001 to 100,000	20.5	0.86 (0.60;1.23)	26.1	0.81 (0.60;1.10)	17.1	0.58 (0.40;0.84)	69.3	0.97 (0.86;1.10)	
100,001 or more	14.6	0.61 (0.41;0.92)	38.0	1.18 (0.92;1.52)	9.9	0.33 (0.21;0.53)	67.7	0.95 (0.84;1.08)	
P value <sup>a</sup>		0.019		0.371		< 0.001		0.522	
MHDI <sup>b</sup>									
0,666 to 0,8020	22.0	1.00	28.1	1.00	21.5	1.00	68.2	1.00	
0,8030 to 0,8700	18.7	0.85 (0.65;1.11)	34.6	1.23 (1.00;1.51)	20.4	0.95 (0.73;1.24)	69.5	1.02 (0.93;1.12)	
P value <sup>a</sup>		0.238		0.046		0.694		0.685	
Completeness of FHS									
Up to 30%	11.3	1.00	34.0	1.00	10.4	1.00	64.6	1.00	
30 to 64,9%	18.6	1.64 (1.03;2.63)	28.4	0.84 (0.63;1.11)	14.9	1.43 (0.86;2.39)	70.7	1.09 (0.96;1.25)	
65% or more	26.2	2.32 (1.53;3.50)	31.6	0.93 (0.73;1.18)	30.1	2.90 (1.90;4.43)	70.2	1.09 (0.96;1.22)	
P value <sup>a</sup>		< 0.001		0.683		< 0.001		0.209	

a) Chi-square for heterogeneity or linear trend. b) Municipal Human Development Index.

Conducting guidance groups on communicable diseases was reported by 68.9% of the teams, covering dengue, human immunodeficiency virus (HIV), tuberculosis, leprosy and trachoma. However, only 31.4% of the teams performed actions to prevent tuberculosis and 21.0% for leprosy.

Brazil presented advances in relation to tuberculosis, with a reduction in the incidence rate to 36.7/100 thousand inhabitants in 2014.25 However, in Rio Grande do Sul, the incidence remained at 43.6 cases/100 thousand inhabitants in recent years and the goal of 85% cure of new cases has not been reached.<sup>23</sup> It is noteworthy that there is a difficulty in the organization of health services, especially in relation to the followup of these cases and implementation of the Directly Observed Treatment (TDO) method in municipalities. 23 This result may also be a reflection of the lack of education and promotion of health by the State PHCT.

It should be noted that the higher prevalence of tuberculosis-related diseases in municipalities with a higher HDI may be related to the referral of infected individuals to specialized services, which are mostly located in municipalities with large populations. These, in turn, have presented better economic conditions, with greater capacity of investment in services, technologies and human resources.<sup>26</sup>

In Brazil, the general detection coefficient of new cases of leprosy is 15.32 / 100 thousand inhabitants. Rio Grande do Sul has levels of elimination of the disease as a public health problem, with a coefficient of 1.25 case / 100 thousand inhabitants; however, has the highest percentage of late diagnosed cases.<sup>23</sup> The low endemic level may be a reason for poor mobilization and surveillance, which is perceived by the low proportion of teams that offered actions to prevent tuberculosis. Brazilian study<sup>8</sup> shows that education

PMAQ-AB: Program for Improving Access and Quality of Primary Care. PR Prevalence ratio

<sup>95%</sup>CI: Confidence interval.

FHS: Family Health Strategy

and health promotion actions directed at tuberculosis and leprosy have a higher prevalence of supply in the country compared to the state of Rio Grande do Sul.

Regarding HIV and AIDS, Brazil has advanced and was an international highlight in promoting rapid testing and treatment with antiretroviral therapy, reducing mortality by 10.9% in the country and in the state of Rio Grande do Sul in the 2003 to 2014.<sup>27</sup> Rio Grande do Sul is the second state with the highest rate of AIDS detection in Brazil (38.3/100 thousand inhabitants), double the national coefficient (19.7/100 thousand inhabitants).<sup>23</sup> However, it is necessary to avoid dissemination of the disease, with priority being given to prevention measures, especially sexual prevention.

Dengue fever had a high incidence between 2002 and 2012 in the country, with the South region having the lowest incidence compared to the others, especially Rio Grande do Sul.<sup>28</sup> The epidemiological profile of communicable diseases shows the need for more effective actions for the control, restructuring of epidemiological surveillance, review of policies, inclusion of local realities, and integration of health actions with other sectors of government and society.<sup>28</sup>

Also noteworthy the low proportion of teams that offered prevention and treatment actions to the use, abuse and dependence of crack, alcohol and other drugs (32.4%). The consumption of licit and illicit substances has become a public health problem due to increased consumption and consequent health damage. A national study, in 2013, showed that 15.0% of the Brazilian population is a user of tobacco products, while 24% consume alcoholic beverages once or more per week; in Rio Grande do Sul, prevalence was 16.1 and 28.4%, respectively.<sup>13</sup> This scenario demonstrates that it is necessary to have a more accurate look at the current configuration of the drug scenario in the country and that it is indispensable to respond to the demands in the field of prevention. Joint involvement of different sectors of society and institutions, such as school, health and safety, is considered necessary.<sup>29</sup>

The low proportion of teams that took actions to reduce the consumption of anxiolytics and benzodiazepines (20.3%) denounces the need for greater attention to mental health. The consumption of medicines without indication or without following the medical prescription can cause several damages to the health. Benzodiazepines promote tolerance and dependence and, therefore, their use should be judicious and safe, and it is a priority to develop intervention strategies, since the severity of inappropriate use is high.<sup>30</sup>

When conducting a general analysis of the equipment that offer education actions and health promotion in primary care, we need to be teams and municipalities that were manifested in PMAQ format and submitted voluntarily to an evaluation process. In addition, there is evidence in the literature that teams may overestimate the performance of health actions,<sup>3</sup> hence the importance of evaluating the existence of supporting documents of the respective actions, which was not possible in this study, due to inconsistencies found in the database.

In the stratification of the teams that reported actions by population size, it was observed that, as the size of the municipality increased, there was a decrease in the proportion of teams that offered education and health promotion actions. Often small municipalities concentrate the highest coverage of the FHS, <sup>12</sup> which may favor positive results, although most of these locations do not have the best economic conditions. It should be noted that the implementation and organization of the FHS in large municipalities takes place in a complex context, which may hinder its execution and effectiveness. <sup>26</sup>

The increase in the proportion of teams that offered education and health promotion actions in municipalities with greater FHS coverage reinforces their reorganizing role in basic health care, <sup>2</sup> although most of the offerings are not associated with FHS coverage. It should be noted that if the coverage of the FHS reached 100% of the population of the municipalities, regardless of their population size and HDI level, the offer of these actions would increase to more satisfactory levels, <sup>5</sup> which demonstrates the need for expansion of the FHS in the country.

The PMAQ-AB is a government initiative responsible for the transfer of financial incentives that allow the improvement of the quality of the structure and the assistance in the services. Thus, further analysis should be performed, including the data collected in 2014 in Brazil, in order to assess whether there was an increase in the prevalence of education actions and health promotion. In addition, research is needed to assess the effectiveness and impact of these actions on the health of the population.

With this study, we can conclude that the offer of health promotion actions is still predominantly focused on those traditionally developed since the implantation of ABS in Brazil, such as those directed to women's health, the reproductive period and specific groups of chronic diseases. It is urgent to rethink the process of care of the PHCT, which is still influenced by the biomedical model of health care. It is necessary to take into account the epidemiological profile, the health needs of the local population and a comprehensive care when offering education and health promotion actions; for better performance and resolution, intersetorial activities are indispensable. It should be emphasized that these actions should not be imposed and / or punitive, but developed in a relationship between professional and user, allowing awareness and empowerment for self-care.

# References

- Ministério da Saúde (BR). Secretaria de Políticas de Saúde. Projeto promoção da saúde. As cartas de promoção da saúde [Internet]. Brasília: Ministério da Saúde; 2002 [citado 2018 mar 6]. 56 p. (Série B. Textos Básicos em Saúde). Disponível em: http://bvsms. saude.gov.br/bvs/publicacoes/cartas\_promocao.pdf
- Oliveira MAC, Pereira IC. Atributos essenciais da Atenção Primária e a Estratégia Saúde da Família. Rev Bras Enferm. 2013 set;66(esp):158-64.
- Medina MG, Aquino R, Vilasbôas ALQ, Mota E, Pinto Júnior EP, Luz LA, et al. Promoção da saúde e prevenção de doenças crônicas: o que fazem as equipes de Saúde da Família?. Saúde Debate. 2014 out;38(esp):69-82.
- 4. Facchini LA, Piccini RX, Tomasi E, Thumé E, Silveira DS, Siqueira FV, et al. Desempenho do PSF no Sul e no Nordeste do Brasil: avaliação institucional e epidemiológica da Atenção Básica à Saúde. Ciênc saúde coletiva. 2006 jul-set;11(3):669-81.
- 5. Tomasi E, Oliveira TF, Fernandes PAA, Thumé E, Silveira DS, Siqueira FV, et al. Estrutura e processo de trabalho na prevenção do câncer de colo de útero na Atenção Básica à Saúde no Brasil: Programa de Melhoria do Acesso e da Qualidade PMAQ. Rev Bras Saúde Matern Infant. 2015 abr-jun;15(2):171-80.
- Silva SM, Facchini LA, Tomasi E, Piccini R, Thumé E, Silveira DS, et al. Advice for salt, sugar and fat intake habits among adults: a national-based study. Rev Bras Epidemiol. 2013 Dec;16(4):995-1004.
- Duro SM, Tomasi E, Siqueira FV, Silveira DS, Thumé E, Facchini LA. Adult physical activity counseling by health

# **Authors' contributions**

Kessler M, Thumé E and Piccinini T contributed in the conception and design of the study, analysis and interpretation of results and writing of the manuscript. Duro SMS, Tomasi E, Siqueira FCV, Silveira DS, Nunes BP, Volz PM, Santos AA dos, France SM, Bender JD, Piccinini T, Facchini LA contributed in the analysis and interpretation of the results and in the writing of the manuscript. All authors participated in the relevant critical review of the manuscript's intellectual content, approved its final version and declared to be responsible for all aspects of the study, ensuring its accuracy and integrity.

- professionals in Brazil: a national urban population survey. J Phys Act Health. 2015 Aug;12(8):1177-83.
- Teixeira MB, Casanova A, Oliveira CCM, Ensgtrom EM, Bodstein RCA. Avaliação das práticas de promoção da saúde: um olhar das equipes participantes do Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica. Saúde Debate. 2014 out;38(esp.):52-68.
- Instituto Brasileiro de Geografia e Estatística. Cidades@. Rio Grande do Sul [Internet]. População 2010 [citado 2017 mar 10]. Disponível em: http://cidades.ibge.gov.br/xtras/ uf.php?lang=&coduf=43&search=rio-grande-do-sul
- 10. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Programa nacional de melhoria do acesso e da qualidade da atenção básica (PMAQ-AB): manual instrutivo [Internet]. Brasília: Ministério da Saúde; 2012 [citado 2018 mar 6]. 61 p. Disponível em: http://189.28.128.100/dab/docs/publicacoes/geral/ manual\_instrutivo\_pmaq\_site.pdf
- 11. Programa das Nações Unidas para o Desenvolvimento. Índice de desenvolvimento humano municipal [Internet]. 2010 [citado 2014 maio 07]. Disponível em: http://www.pnud.org.br/IDH/Default. aspx?indiceAccordion=1&li=li\_AtlasMunicipios.
- 12. Ministério da Saúde (BR). Departamento de Atenção Básica. Histórico de cobertura da saúde da família [Internet]. 2013 [citado 2017 fev 20]. Disponível em: http://dab.saude.gov.br/portaldab/historico\_ cobertura\_sf.php

- 13. Instituto Brasileiro de Geografia e Estatística. Pesquisa nacional de saúde 2013: percepção do estado de saúde, estilos de vida e doenças crônicas. Brasil, grandes regiões e unidades da Federação [Internet]. Rio de Janeiro: Ministério da Saúde; 2014 [citado 2018 mar 6]. 181 p. Disponível em: ftp://ftp.ibge.gov.br/PNS/2013/pns2013.pdf
- 14. Venancio SI, Rosa TEC, Bersusa AAS. Atenção integral à hipertensão arterial e diabetes mellitus: implementação da Linha de Cuidado em uma Região de Saúde do estado de São Paulo, Brasil. Physis. 2016 jan-mar;26(1):113-35.
- 15. Giovanella L, Mendonça MHM, Moraes SME, Almeida PF, Fausto MCR, Senna MCM, et al. Potencialidades e obstáculos para a consolidação da Estratégia Saúde da Família em grandes centros urbanos. Saúde Debate. 2010 abr-jun;34(85):248-64.
- Alves LHS, Boehs AE, Heidemann ITSB. Family health strategy professionals and users'perception on health promotion groups. Texto Contexto Enferm. 2012 abrjun;21(2):401-8.
- 17. Sasaki AK, Ribeiro MPDS. Percepção e prática da promoção da saúde na estratégia saúde da família em um centro de saúde em São Paulo, Brasil. Rev Bras Med Fam Comunidade. 2013 jul-set;8(28):155-63.
- 18. Ministério da Saúde (BR). Rede Interagencial de Informações de Informações para a Saúde. Indicadores e dados básicos [Internet]. 2012 [citado 21 dez 2017]. Disponível em: http://tabnet.datasus. gov.br/cgi/idb2012/matriz.htm
- 19. Lima-Costa MF. The Bambuí cohort study of aging (1997-2008). Cad Saúde Pública. 2011;27(Supl 3):S324-25.
- 20. Silva PAS, Furtado MS, Guilhon AB, Souza NVDO, David HMSL. A saúde do homem na visão dos enfermeiros de uma unidade básica de saúde. Esc Anna Nery Rev Enferm. 2012 set;16(3): 561-8.
- 21. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Pré-natal e puerpério: atenção qualificada e humanizada manual técnico [Internet]. Brasília: Ministério da Saúde; 2006 [citado 2018 mar 6]. 163 p. (Série A. Normas e Manuais Técnicos). Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/manual\_pre\_natal\_puerperio\_3ed.pdf
- 22. Instituto de Pesquisa Econômica Aplicada. Secretaria de Planejamento e Investimentos Estratégicos. Objetivos de desenvolvimento do milênio: relatório nacional de acompanhamento [Internet]. Brasília:

- Ipea: MP, SPI; 2014 [citado 2018 mar 6]. 208 p. Disponível em: http://www.ipea.gov.br/portal/images/stories/PDFs/140523\_relatorioodm.pdf
- 23. Secretaria Estadual de Saúde (RS). Grupo de Trabalho de Planejamento, Monitoramento e Avaliação da Gestão. Plano Estadual de Saúde: 2016/2019 [Internet]. Porto Alegre: Secretaria Estadual de Saúde; 2016 [citado 2018 mar 6]. 228 p. Disponível em: http://www.saude.rs.gov.br/upload/ arquivos/201701/05153251-pes-2016-2019-sesrs.pdf
- Pierre LAS, Clapis MJ. Family planning in a family health unit. Rev Latino-Am Enfermagem. 2010 Nov-Dec;18(6):1161-8.
- 25. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Departamento de Vigilância das Doenças Transmissíveis. Panorama da tuberculose no Brasil: indicadores epidemiológicos e operacionais [Internet]. Brasília: Ministério da Saúde; 2014 [citado 2018 mar 6]. 92 p. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/panorama%20 tuberculose%20brasil 2014.pdf
- 26. Viana ALA, Rocha JSY, Elias PE, Ibañez N, Novaes MH. Modelos de atenção básica nos grandes municípios paulistas: efetividade, eficácia, sustentabilidade e governabilidade. Ciênc Saúde Coletiva. 2006 julset;11(3):577-606.
- 27. Ministério da saúde (BR). Secretaria de Vigilância em Saúde. Departamento de DST, Aids e Hepatites Virais. HIV/AIDS. Bol Epidemiológico [Internet]. 2015 jan-jun [citado 2018 mar 6];4(1):1-95. Disponível em: http://www.aids.gov.br/pt-br/pub/2015/boletim-epidemiologico-hivaids-2015
- Böhm AW, Costa CS, Neves RG, Flores TR, Nunes BP. Tendência da incidência de dengue no Brasil, 2002-2012. Epidemiol Serv Saude. 2016 outdez;25(4):725-33.
- Machado IV, Boarini ML. Políticas sobre drogas no Brasil: a estratégia de redução de danos. Psicol Cienc Prof. 2013;33(3):580-95.
- 30. Telles Filho PCP, Chagas AR, Pinheiro MLP, Lima AMJ, Durão AMS. Utilização de benzodiazepínicos por idosos de uma estratégia de saúde da família: implicações para enfermagem. Esc Anna Nery Rev Enferm. 2011 jul-set;15(3):581-6.

Received on 26/10/2017 Approved on 26/01/2018