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Social determinants of health and the Brazilian Family Health Care Program in the city of Sao Paulo, Southeastern Brazil

ABSTRACT

OBJECTIVE: To analyze the current status of the interventions related to social determinants of health conducted in the context of the brazilian family health program.

METHODS: A case study using a mixed method approach based on a sequential explanatory strategy with 171 unit managers in the Family Health Care Program in the municipality of Sao Paulo, SP, Southeastern Brazil, in 2005/2006. Self-administered questionnaires were applied and semi-structured interviews and focus groups were conducted with a purposive sample of professionals involved in initiatives related to social determinants of health. Quantitative data were analyzed using descriptive statistics, multiple correspondence analysis, cluster analysis and correlation tests. Qualitative data were analyzed through content analysis and the creation of thematic categories.

RESULTS: Despite the concentration of activities directed at disease care, the Family Health Care Program carries out various activities related to the social determination of health, encompassing the entire spectrum of health promotion approaches (biological, behavioral, psychological, social and structural) and all major social determinants of health described in the literature. There was a significant difference related to the scope of the determinants being worked on in the units according to the area of the city. The description of the activities revealed the fragility of the initiatives and a disconnection with the organizational structure of the Family Health Care Program.

CONCLUSIONS: The quantity and variety of initiatives related to social determinants of health attests to the program's potential to deal with the social determination of health. On the other hand, the fluidity of objectives and the 'out of the ordinary/extraordinary' characterization of the described initiatives raises concern about its sustainability as an integral part of the program's current operational model.

DESCRIPTORS: Social Conditions. Social Inequity. Health Inequalities. Family Health Program. Primary Health Care. Health Promotion.

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INTRODUCTION

It is the governments' role to find ways of restructuring its health care systems to overcome inequity, increase efficiency and improve citizens' satisfaction with the services provided.[7,20] In this process of reorganizing health care policies, some countries have looked to holistic health promotion strategies and recommendations. They aim to establish health centered models which foster equity, integration, social participation and inter-sectoral collaboration.[a] The Brazilian Family Health Care Program (PSF) is an example of this kind of model.[b]

The PSF is as a primary health care strategy centered on the territory and the health needs of families and communities. The program works towards a transformative practice in which health is the focal point rather than illness. The PSF targets inter-sectorial action, moving beyond the health care sector and dealing with social determinants of health.

The social determination of health is of great concern to international bodies, especially the World Health Organization (WHO).[11] Equity in health is a long term goal. The WHO established the Social Determinants of Health (SDH) commission in 2005 as part of the organization's change in focus onto interventions concerning social conditions for health. The restructuring of health care systems so that they are able to promote health is among the main challenges set by the commission.[13] Due to the continued national and international interest in SDH, in 2011 an international conference on SDH was organized by the WHO in Brazil,[2] and the importance of an holistic and inclusive health care system was highlighted.[c]

At an international level, the PSF is an important case study with regards to SDH interventions in the context of the health care systems and, at a national level, it is a strategy which needs to be continuously monitored and managed.

This study aims to analyze the current status of social determinants of health interventions within the Brazilian Family Health Care Program.

METHODS

A case study[19] on SDH interventions within the PSF in Sao Paulo, SP, in 2008. The city was chosen due to its significance for the PSF Program as a whole and for the feasibility of the data collection process. The study was divided into two sequential stages of data collection and analysis, based on a sequential explanatory strategy.[6] The first stage, mainly quantitative, included the collection of qualitative and quantitative data obtained from questionnaires filled in by managers of family health care units in the city. The survey only captured the vision of one professional category, but since it was population based, the data was generalizable to the city level. In the second stage of data collection, purely qualitative, semi-structured interviews and focus groups incorporated the views of different professionals from the program, providing a more in-depth examination of the topic. This article presents the data selected from the first stage of the study.

The survey collected information from health care unit managers. The managers filled in a semi-structured questionnaire on specific days when they had district-based management meetings. There were 201 health care units linked to the PSF or the Community Health Care Agent Program (PACS). The questionnaire was completed by 171 managers (85% of the population). The managers of the PSF units were predominantly female (83%); 67% were between 40 and 60 years old; 51% were nurses or doctors; 57% had been on the unit between two and six years; and 59% had been in the current position between two and six years.

The majority (82%) of the questionnaires were completed in the presence of the researcher. There was only one refusal to complete a questionnaire. The main reason for not filling in the questionnaire was the manager missing the management meeting. All health care districts, sub-districts, partner institutions and care models (PSF, PACS) were significantly represented in the data obtained. With the aim of protecting the respondents and to minimize potential propensity to respond as expected of them by the program coordinators, confidentiality was guaranteed. To minimize "errors in interpretation", the questionnaire was subject to pre-tests.

Multiple Correspondence Analysis (MCA) was used to simultaneously analyze the statements of the various categories of SDH interventions in the units. A list of 22 SDH was given to the managers using multiple choice questions. The SDH were selected based on a revision of the literature.[d] Hierarchical cluster analysis

[a] Pan American Health Organization. Renewing primary health care in the Americas: a position paper of the Pan American Health Organization/World Health Organization (PAHO/WHO). Washington (DC); 2007.
[b] Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Atenção Básica. Política nacional de atenção básica. Brasília (DF); 2006. (Série Pactos pela Saúde, 4).
[c] World Health Organization. Rio political declaration on social determinants of health. In: World Conference on Social Determinants of Health; 21 Oct 2011; Rio de Janeiro, Brazil. World Health Organization; 2011 [cited 2013 Jun 24]. Available from: http://www.who.int/sdhconference/declaration/Rio_political_declaration.pdf
[d] Dowbor TP. O trabalho com determinantes sociais da saúde no Programa Saúde da Família do Município de São Paulo [tese de doutorado]. São Paulo: Faculdade de Saúde Pública da Universidade de São Paulo; 2008.

was used to characterize the individuals (managers). Those who responded in a similar manner were placed together in a category. To characterize groups, residual analysis was used, indicating which responses actually predominated in each group. The patterns of response for each group were consolidated and the group was classified according to its pattern.[16] The link between the respondent groups and the health care districts responsible for different areas of the city were assessed using Fisher's exact test. There was no homogeneity found between the groups ($p = 0.003$).

The study was approved by the Research Ethics Committee of the Sao Paulo Municipal Health Department (Process 064/2005) and by the Research Ethics Committee of the *Faculdade de Saúde Pública, Universidade de São Paulo* (Process 1304/2005).

RESULTS

The program's efforts with regards to SDH initiatives were aimed towards a group of 11 determinants, which were named classic SDH (workplace, drug addiction, stress, health care model, education, social inclusion, self-esteem, early childhood development, sanitation, leisure and food insecurity). A minority group of units, in addition to working with the classic SDH also worked with the named broad determinants of health (sustainable resources, income distribution, employment, peace, social support networks, social justice/equality, income, housing, security, transport and healthy ecosystems) (Table 1).

Table 1. Initiatives with Social Determinants of Health within the Family Heath Care Program according to unit managers. Sao Paulo, SP, 2005 to 2006. (Number of respondents, N = 162)

SDH	#	%
Food insecurity	112	69.0
Leisure	104	64.0
Sanitation	103	64.0
Early childhood development	92	57.0
Self-esteem	89	55.0
Social inclusion	78	48.0
Education	66	41.0
Health care models	65	40.0
Stress	61	38.0
Drug addiction	55	34.0
Workplace	46	28.0
Healthy ecosystem	36	22.0
Transport	34	21.0
Security	33	20.0
Housing	32	20.0
Income	31	19.0
Social justice/equality	30	19.0
Peace	29	18.0
Social support networks	29	18.0
Employment	27	17.0
Income distribution	15	9.0
Sustainable resources	12	7.0

SDH: Social Determinants of Health

After performing multiple correspondence analysis (Figure 1) and grouping analysis, significant differences were observed with regards to the work with SDH in different areas of the city (North, South, Southeast, Midwest and East). Three groups of units were identified: Negativist, which differed statistically from the total as it did not work with SDH (predominantly the South Health District); the Essentialist, which differed statistically from the total for working with classic SDH (predominantly the East Health District); and the Inclusive group, which differed statistically from the total for working with all SDH, both classic and broad (predominantly the Southeast Health District) (Figure 2).

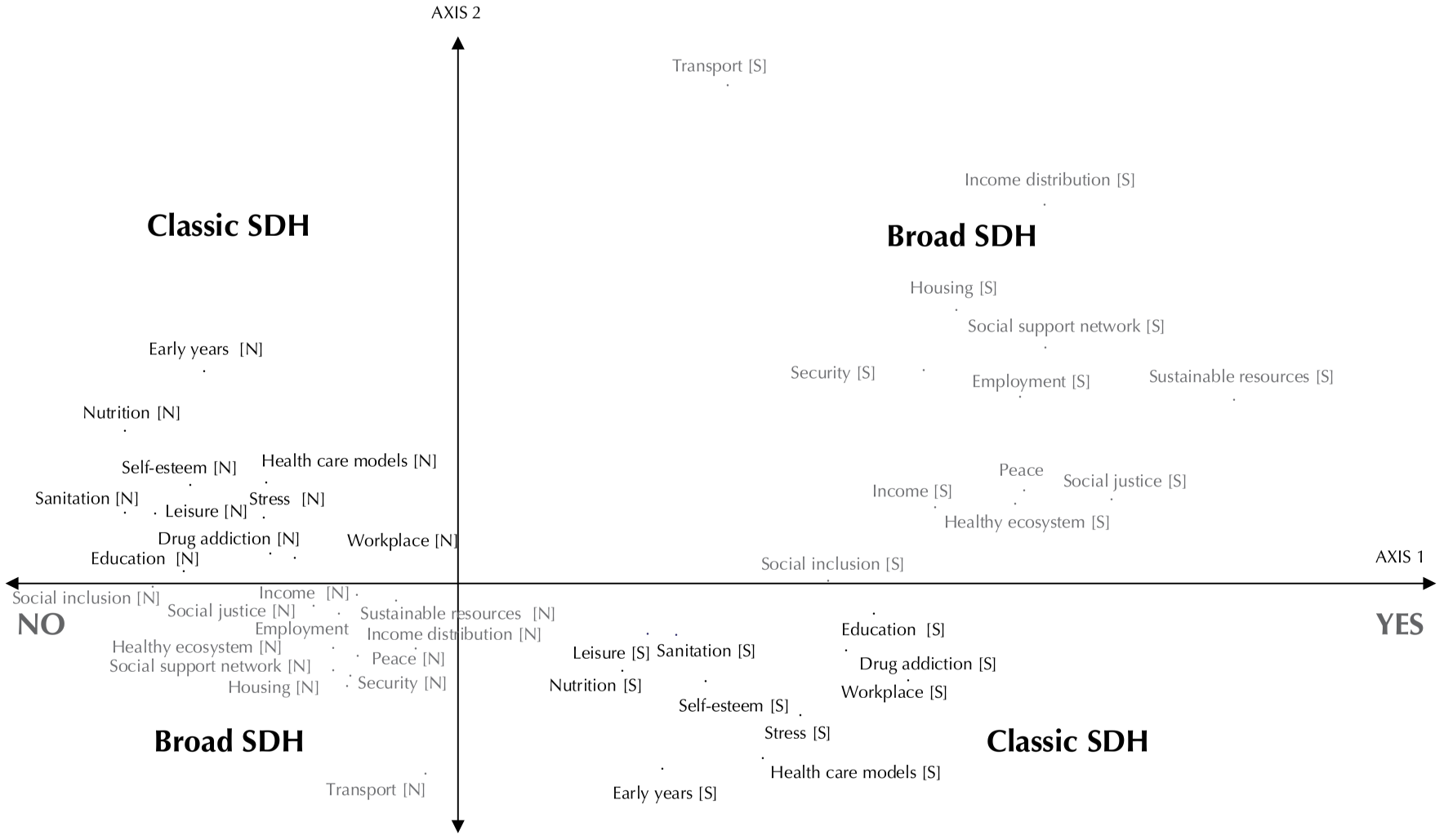
Biomedical intervention activities that aimed at prevention, treatment, early detection and/or curative medicine had a highly regular pattern being carried out in the family health care units daily. Among these activities were medical consultations, dispensing medications and emergency care, among others.

Activities that aimed at changing the behavior of members of the community to develop healthier lifestyles had a varied frequency pattern. Individual counseling was more common than the other activities in this group and was carried out daily in more than 60% of the units. Activities such as health education, presentations, and public health campaigns most commonly occurred monthly or not following a regular pattern.

Activities aimed at encouraging members of the community to mutually help each other in dealing with individual problems also had a varied frequency pattern. They most commonly occurred weekly and monthly. These activities included a variety of self-help groups and other forms of psychosocial support.

Activities run in tandem with the community which aimed to improve the community member's quality of life and/or resolve local problems most commonly took place weekly, monthly or never (Table 2). More than 200 activities from this group were mentioned by the interviewees.

Activities related to the development and/or mobilization of health care or quality of life public policies had a poor pattern of regularity. In this group, the most common frequencies were monthly or with no pattern of regularity. Activities related to participating in



MCA: Multiple Correspondence Analysis
SDH: Social Determinants of Health
Figure 1. Multiple Correspondence Analysis and Social Determinants of Health initiatives in the Family Health Care Program, according to unit managers. Sao Paulo, SP, 2005 to 2006.

Table 2. Frequency of activities in conjunction with the community aiming to improve quality of life for the members of the community and/or resolve local problems within the Family Health Care Program. Sao Paulo, SP, 2005 to 2006.

Frequency	Activity									
	Community therapy		Identification of local problems and/or vulnerabilities		Education		Leisure		Income generation	
	#	%	#	%	#	%	#	%	#	%
Daily	9	6.0	19	13.0	24	17.0	15	10.0	9	7.0
Weekly	54	36.0	17	12.0	32	22.0	35	23.0	32	24.0
Monthly	13	9.0	48	33.0	36	25.0	25	16.0	7	5.0
Quarterly	0	0	6	4.0	10	7.0	10	7.0	4	3.0
Semiannually	0	0	3	2.0	6	4.0	11	7.0	3	2.0
Annually	0	0	4	3.0	0	0	11	7.0	5	4.0
No pattern of regularity	13	9.0	23	16.0	18	13.0	26	17.0	18	13.0
Unknown	8	5.0	12	8.0	6	4.0	6	4.0	8	6.0
Never	54	36.0	13	9.0	12	8.0	13	9.0	50	37.0
Partial total	151		145		144		152		136	
No answer	20		26		27		19		35	
Total	171		171		171		171		171	

local and/or health care advisory panels were the most commonly reported in this group. They most commonly occurred monthly. Work group activities (research, accident prevention, primary health care reception and triage, humanization, combatting violence, and environment) occurred monthly or never.

The main reported obstacles to SDH initiatives in the PSF of the city were: unfavorable socioeconomic conditions, lack of resources, the population's lack of adherence and the imbalance between low supply and high demand for services. The main facilitating factors were: the existence of the Community Health Workers (ACS) as part of the team, population mobilization, professional commitment, partnerships and knowledge of the territory.

DISCUSSION

Despite the anticipated concentration of activities aimed at treating disease, the PSF in the city of Sao Paulo carries out a variety of activities connected to social determinants of health, including all of the fundamental approaches for promoting health (biological, behavioral, psychological, social and structural)[4,10,15,17] and all of the main SDH described in the literature.[12,e,f]

The existence of negativist, essentialist and inclusive groups, and their association with different Health Districts indicates regional influences in SDH initiatives. The South East Health District was linked with the inclusive group. The initiatives developed by a PSF partner institution in the area (of programmatic bio-psychosocial vulnerabilities) is a point to be further explored.[d]

No quantitative studies comparing type and frequency of SDH were found. The classification of SDH as classic and broad used to create the negativist, essentialist and inclusive groups created a precedent for classifying SDH initiatives within the PSF, as it can be used in future comparative studies carried out in Brazil.

Although little is known about the characterization of these groups besides the SDH initiatives in each PSF unit, it is possible to compare them with the response categories which emerged from the second stage of the study. Member of the program coordination, partner institutions and professionals involved in SDH initiatives within the PSF expressed five categories of options with regards the inclusion of SDH initiatives in the context of the PSF: (1) the ethical imperative of equity and (2) the determinism of the professional-community connection (based on the presence of the ACS) were described as a driving force behind SDH initiatives. (3) The priority of dealing with disease as the unique role of the health sector and (4) the inability to affect social structure through local interventions were described as reasons to not work with SDH in the context of the program. (5) Finally, a philosophical and technical question of belonging and viability, and the lack of understanding about the program's aims were mentioned as reasons for uncertainty. Although these arguments cannot be linked directly to the inclusive,

[e] Mikkonen J, Raphael D. Social determinants of health: the Canadian facts. Toronto: York University School of Health Policy and Management; 2010 [cited 24 Ago 2013]. Available from em: http://www.thecanadianfacts.org/The_Canadian_Facts.pdf

[f] World Health Organization. Closing the gap in a generation: health equity through action on the social determinants of health: final report of the WHO Commission on the Social Determinants of Health. Geneva; 2008.

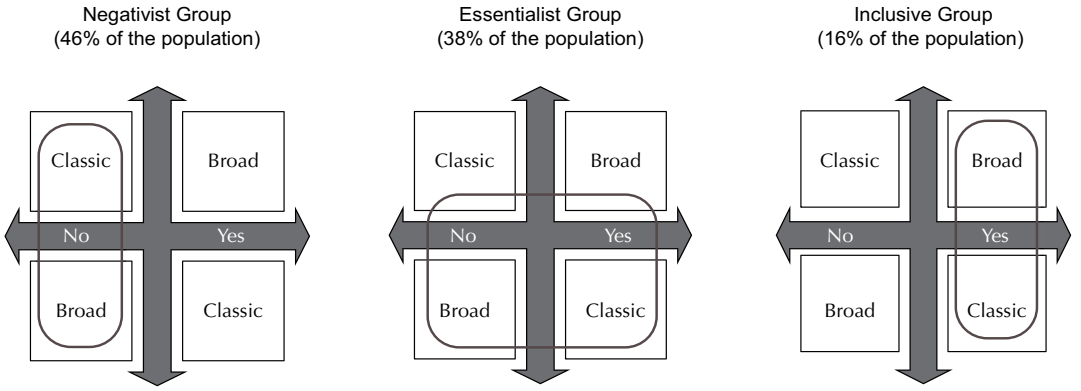


Figura 2. Respondent groups according to category of response with regards to initiatives with Social Determinants of Health within the Family Heath Care Program. Sao Paulo, SP, 2005 to 2006.

negativist and essentialist groups, we can find in them the theoretical and practical bases for the existence of these three groups.

It is also possible to better characterize the inclusive group based on SDH activities reported by the group itself in the second stage of the study. According to members of this group, SDH activities show a low level of institutionalization and high level of dedication and effort from some professionals, especially the ACS, viewed as the main facilitator for SDH initiatives. SDH activities are not usually evaluated. Informal assessments are carried out without goals or references. The stories told are of frustration, but also of overcoming difficulties and improving the population's quality of life. Spending on the initiatives is low and they are usually financed either by a small budget from the unit manager or by donations from employees, the community and local partners.

According to the reports from the inclusive group, due to lack of program support, SDH activities within the PSF are typically "fluid" and "out of the ordinary/extraordinary": this fluidity opportunistically embraces different concepts of health and different objectives within the same initiative. Instead of setting truly comprehensive and holistic goals, opportunistic objectives are established to ensure the survival of the initiative in the context of the program. The "out of the ordinary/extraordinary" character is constituted by the dual view of the initiatives as extra work, carried out to the detriment of the program's planning and, at the same time, as work which is better than ordinary, carried out as a form of exalting the potential of the program to deal with the broad determination of the health-disease process.

This stage of an outbreak of disconnected, deinstitutionalized activities is in agreement with that described by Campos & Teixeira[g] (2005), in a qualitative national study carried out with 12 health promotion initiatives in the PSF. They concluded that the practice of promoting health was highly fragile and not institutionalized within the program. As a consequence, it is necessary to bring external factors into the program to establish these types of activities in the PSF. The inter-sectoral activities identified were based on specific partnerships, far from the program's management practices.

Gonçalves et al[9] (2011) evaluated inter-sectorial activities in PSF, using a qualitative case study, in Belo Horizonte and Contagem, MG, Southeastern Brazil. They found the activities were based on specific partnerships different from those practiced by the program managers.

Carvalho et al[5] (2009) carried out a descriptive mixed cross-sectional study (quantitative/qualitative) on inter-sectoral activities in a health district in Goiânia, GO, Midwestern Brazil. According to these authors, 71% of the health care professionals reported participating in "activities to resolve individual or group problems", a percentage close to the one mentioned in this article for activities run in tandem with the community, which aimed to improve members of the community's quality of life and/or resolving local problems. They also stated the lack of understanding on the part of many professionals with regards to inter-sectoral initiatives and the lack of an evaluation policy for this type of initiative.

Gil[8] (2006) reviewed the literature on the PSF between 1990 and 2005 and stated that the PSF did not manage to incorporate a wider vision of health care into its management. However, we are also reminded that programmatic fragility is an inherent part of the growth paradox and this fragility can serve as a basis for the program restructuring.

[g] Campos FC, Teixeira PF, coordenadores. Promoção de saúde na atenção básica no Brasil: relatório de pesquisa apresentado à FUNDEP 8966-OPAS. Belo Horizonte: Núcleo de Estudos em Saúde Coletiva da Faculdade de Medicina da UFMG; 2005. Projeto FUNDEP 8966-OPAS/FM/NESCON/Estudos de caso. Available from: http://189.28.128.100/dab/docs/geral/promocao_saude_ab.pdf

Sousa & Hamann[18] show the importance of producing management technologies that include the complexity of actions aimed at the broad determination of the health--disease process. For Campos & Guerreiro,[3] strategies to strengthen management and training centers for primary care should be applied for overcoming the obstacles that the PSF encountered in order to plan SDH initiatives.

Significant efforts on the part of professionals in the PSF to work with social determinants of health were identified. However, for these efforts to serve as leverage for changing the health care model, they need to be coordinated with efforts on the part of management and with the program itself. Such an alignment was not observed in this study and, according to the literature, is not present in the other regions of the country.[5,8,9,g] The PSF service organization logic and the social determinants of health intervention model needs to be rethought. This process of negotiation and renegotiation between the coordinators of the program and the professionals on the chalk face is fundamental if SDH activities in the PSF are to move from competing with health care to becoming an integral part of inter-sectoral health services[14] (in contrast to their present fluid state) and sustainable (in contrast to their present extraordinary character).

There is great potential to work with social determinants of health within the PSF. However, for this potential to be reached in a sustainable and comprehensive way, it is necessary that a framework is created which goes beyond individual facilitators and includes aspects of program management. SDH initiatives need to be acknowledged within the context of the PSF as a state policy, which would include financing, training, evaluation, inter-sectoral collaboration and civil society participation protocols. The link between the Health Districts and the approaches of the SDH initiatives in the PSF units in Sao Paulo needs to be investigated. We suggest comparative studies of districts and aspects related to the problems and opportunities in each district, including organization practices and staff training. We furthermore recommend the undertaking of case studies on the management practices of the PSF and their implications for initiatives with social determinants of health. These studies should concentrate on specific work processes, especially documents incorporated into the day-to-day running of the services (forms, meetings minutes, assessments, reports, letters), guidance documents, human resource and financial policies and inter-sectoral contracts, among others. According to Andrade,[1] analyzing processes of inter-sectoral relationships is necessary as the sustainability of SDH initiatives within the health care sector necessarily involves solid partnerships with other sectors.[1]

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The authors declare that there are no conflicts of interest.

HIGHLIGHTS

The article deals with the largest community based program in the Brazilian Unified Health System – The *Programa Saúde da Família* (the Family Health Care Program) – and its relevance and ability to work with social determinants of health.

The group classification for social determinants of health (broad and classic) and for the health care units (Negativist, Essentialist and Inclusive) developed in this article prove themselves to be potential instruments with which Brazilian Unified Health System managers can quantitatively map initiatives with social determinants of health in the context of the *Programa Saúde da Família*.

The regional differences shown in the municipality of Sao Paulo constitute an aspect to be explored by managers in order to understand the impact of their different training policies within the context of social determinants of health. Better understanding of the work of the "Inclusive group" (identified in the article), especially the degree of institutionalization of the activities with social determinants of health with regards financing, assessment, and organization policies helps managers to change discourse and practice in the *Programa Saúde da Família*.

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