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Potential effectiveness of strategies to promote oral health in primary health care: comparative study among Brazilian capitals and regions

Potencial de efetividade das estratégias de promoção da saúde bucal na atenção primária à saúde: estudo comparativo entre capitais e regiões do Brasil

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ABSTRACT: *Objective:* To evaluate the potential effectiveness of strategies of Oral Health Promotion (OHP), which are carried out by teams in primary health care (PHC) in Brazilian capitals and regions. *Methods:* A sample of 1,848 dentists were interviewed (1,819 valid responses) working in the PHC of 26 capitals and the Federal District. The *Effectiveness of the Assessment Tool for the Promotion of Oral Health Strategies* was used. It is composed of 23 indicators grouped into three dimensions: oral health, health public policies, and human and social development. The answers were arranged in a Likert scale (1–5), and the final score obtained for each sample unit can range from 23 to 115. Higher score values indicate greater potential for the strategy to promote oral health. *Results:* Statistically significant differences were identified among the analyzed geopopulation units considering the study object. The Southeast and South regions had better performance for the OHP strategies in comparison to the other regions of Brazil (p ≤ 0.01). *Conclusions:* The OHP strategies identified in the study were heterogeneous, with better results favoring the Southeast regions, with disadvantages for people living in capitals from the Central-North-Northeast of Brazil. Efforts should be undertaken aiming to qualify the PHC teams, especially for those in disadvantageous regions. Therefore, an alignment of PSB strategies to the principles and values of health promotion is required, addressed to the social health determinants (SHDs) and in order to fight the inequalities in oral health.

Keywords: Health Promotion. Oral health. Primary health care. Effectiveness. Health service evaluation. Evaluation of the efficacy-effectiveness of interventions.

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RESUMO: *Objetivo:* Avaliar o potencial de efetividade de estratégias de Promoção da Saúde Bucal (PSB), desenvolvidas por equipes de Atenção Primária à Saúde (APS) nas capitais e macrorregiões brasileiras. *Métodos:* Foram entrevistados 1.848 cirurgiões-dentistas (1.819 respostas válidas) atuantes em equipes de 26 capitais e do Distrito Federal. Utilizou-se a Ferramenta de Avaliação da Efetividade de Estratégias de Promoção da Saúde Bucal, composta de 23 indicadores, reunidos em três dimensões: saúde bucal, políticas públicas saudáveis e desenvolvimento humano e social. As respostas foram ordenadas em uma escala tipo Likert (1 a 5). O escore final para cada unidade amostral obteve uma variação de 23 a 115, sendo que valores maiores do escore indicam maior potencial da estratégia em promover a saúde bucal. *Resultados:* Foram identificadas diferenças estatisticamente significativas entre as unidades geopopulacionais analisadas quanto ao objeto estudado. As regiões Sudeste e Sul apresentam desempenhos superiores quanto às estratégias de PSB adotadas frente às demais regiões do Brasil (p ≤ 0,01). *Conclusões:* As estratégias de PSB identificadas no estudo foram heterogêneas, com melhores resultados favorecendo as regiões do Sul-Sudeste e desvantagens para as pessoas que vivem nas capitais do Centro-Norte-Nordeste do Brasil. São necessários esforços objetivando qualificar equipes de APS, sobretudo para as regiões desfavorecidas. Para isso, é fundamental um alinhamento de estratégias de PSB aos princípios e valores da promoção da saúde, orientados para os determinantes sociais da saúde (DSS) e combate as iniquidades em saúde bucal.

Palavras-chave: Promoção da saúde. Saúde bucal. Atenção primária à saúde. Efetividade. Avaliação de serviços de saúde. Avaliação de eficácia-efetividade de intervenções.

INTRODUCTION

Brazilian states and cities play decisive roles in making the organization principles of the Unified Health System (SUS) effective. All Brazilian cities must at least structure primary health care (PHC) and develop health promotion strategies, by implementing multiprofessional teams that work in basic health units (BHUs)[1]. Based on the National Oral Health Policy "Brasil Sorridente" (PNSB)[2], on the National Basic Care Policy (PNAB)[3], and on the National Health Promotion Policy (PNPS)[4,5], the conduction of oral health promotion (OHP) should be integrated with other health practices carried out by these teams, aiming at ensuring the integrality of health care to Brazilian citizens[2-5]. The base is the social determination of the sickness-health process and the facing of inequities[6-8].

Therefore, health promotion, in the sense of the term, is a complete praxis[9], encouraging equality[10] and processes to improve the quality of life[11], using the approach over common risk factors for several diseases. The potential effectiveness of OHP is related to the conceptual alignment of group interventions, conducted by health teams, involving the pillars (equity, participation, sustainability) and values (governance, autonomy, empowerment, inter-sectoriality, integrality) that are usually mentioned in the critical literature about health promotion[12,13]. The pillars are the theoretical basis of health promotion, or the foundation supporting it, and are also its moral anchor.

The use of adequate methodologies, validated to measure the effectiveness of health promotion, has been given attention in different health systems, aiming at the qualification of care models to face social health determinants (SHDs)[13]. The purpose of assessing the effectiveness of OHP strategies in PHC is challenging, especially when it concerns providing evidence that supports the formulation of public policies, in order to have a positive impact on epidemiological oral health indicators[14,15]. Decision-making in health, based on evidence, is also a gap reflected directly on the daily routine of public oral health management, and on the best use of investments in the field[16,17]. Therefore, focusing on a research field that can generate new evidence and support decision-making in oral health management is justified[18,19].

This study also uses a large set of data produced by the National Study of Health Promotion Practices (E.N.PRO.SA)[12], conducted by the Collaborative Center of the Ministry of Health in Oral Health Surveillance (CECOL/PUCPR). Its development took place in 2013–2014, integrating a deal of cooperation established between the National Coordination of Oral Health, at the Ministry of Health, and Pontifícia Universidade Católica do Paraná. Some of the products predicted were:

1. The production of a national mapping of the 26 state capitals and the Federal District, identifying OHP strategies adopted in PHC in Brazil;
2. The formulation of an effectiveness assessment tool of OHP strategies, whose validation is already published[12,13];
3. The evaluation of the effectiveness potential of the mapped strategies.

As a consequence, this study proposes to evaluate and compare the effectiveness potential of OHP strategies implemented by PHC in the capitals and regions of Brazil, analyzing interventions reported by the teams that were analyzed.

METHODS

Aiming at conducting exploratory, descriptive, and comparative analyses about the OHP strategies used by PHC teams in the 26 Brazilian capitals and the Federal District, as well as among the five Brazilian regions, a database was produced based on the third stage of E.N.PRO.SA[12], conducted from April to December, 2013. The project was approved by the Research Ethics Committee of *Pontifícia Universidade Católica* do Paraná, on March 29, 2012, under protocol CAAE: 01532112.4.0000.0020.

It is necessary to explain the Effectiveness Assessment Tool of OHP Strategies, since it is the same instrument validated in E.N.PRO.SA, which enabled the formation of the database explored in this article. The referential to build the tool (matrix of evaluation indicators) is sustained by a theoretical model that emphasizes the state of the art, as to the pillars and values of health promotion applied to oral health. The tool is composed of 23 indicators gathered in three dimensions: oral health, public health policies, and human

and social development (Chart 1). For each indicator, the responses are ordered in a Likert scale, grading from 1 (does not contemplate) to 5 (contemplates totally). A final score is obtained ranging from 23 to 115; the higher the score, the stronger the association of the strategy with health promotion pillars and values, suggesting greater potential to promote oral health. When using the median as cutoff, scores between 23 and 74 characterize weak strategies, with poor potential, whereas values between 75 and 115 characterize strong strategies, with higher potential to promote oral health in PHC. Obviously, it is necessary to consider that threshold values close to 74–75m characterize a strong transition, or intensity in the potential of the strategy, ranging from the scale of "none/little" to "plausible/a lot of" potential. One detail about the full content of the referred tool, also including the theoretical model used and a glossary, is available at http://www.universidadesaudavel.com.br/e-books/.

With regard to the sampling plan, the first profile requirement for who would be considered important to respond to the questionnaire, was the involvement with OHP strategies — and not any random PHC team registered in the National Register of Health Establishments (CNES). In fact, according to the CNES record, 6,296 teams worked in the capitals at the time of the study (2,515 teams of oral health from Family

Chart 1. Descriptors matrix: pillars and values of health promotion, Brazil, 2014.

Oral health	Healthy public policies	Human and social development
1. Recognition of social health Determinants in the development of the assessed strategy 2. Recognition of common risk factors 3. Access to the epidemiological profile of oral diseases and conditions before and during the development of the strategy 4. Comparison and recognition of results reached 5. Strength of the definition of new goals of the strategy	1. Prioritization of more vulnerable groups 2. Equanimous participation of the target population 3. Partnership between different social actors (professionals, institutions and community leaders) 4. Partnership between different health professionals in the territory 5. Partnership with other health promotion activities in the territory 6. Recognition and support of the strategy by the local, district and municipal health administration 7. Specific resources used for the development of the strategy 8. Prediction of evaluation of process and results throughout the development of the strategy 9. Pactuation and recognition of results by the local UBS 10. Pactuation and recognition of results by the Local Health Council	1. Recognition of values of the target population for the development of the strategy 2. Participation of community in the definition of priorities, goals, conduction, and evaluation of the strategy 3. Promotion of evaluation and discussion of the results generated by the strategy 4. Changes in the process of conducting the strategy based on suggestions from the community 5. Publication of the strategy for the local community 6. Shared protagonism of the strategy 7. Development of permanent education actions for health professionals and different social actors 8. Maintenance of results and benefits of the strategy

Source: Kuzma, Moysés and Moysés[13].

Health Strategy, being 1,969 in modality I, and 546 in modality II, added to 3,781 teams in traditional basic care).

To meet the presumed basic criterion of inclusion for the eligible population, the idea was to confirm the number of dental surgeons involved with the OHP, by making direct contact with oral health administrations from the capitals. In parallel, aiming at preventing the sub-representation of teams in capitals with a larger PHC network, whenever possible the idea was to work with probability proportional to size, respecting the number of dental surgeons involved with OHP strategies, effectively working, thus generating subsamples of different sizes in the capitals.

So, the following actions were taken:

1. Getting in contact with the Health Secretariats in the cities, verbally reassuring the explanation of the research, already informed by printed mail;
2. Aligning the study with the person in charge of oral health coordination;
3. Verifying how health units were organized (if in teams that distinguished between traditional basic care or family health);
4. Establishing with oral health coordination or the administrator in charge, operational, logistic and feasibility matters, including the liberation of professionals in working hours; it was established that the sampling plan would aim at reaching at least 5% of the eligible oral health teams in Brazilian capitals, in order to ensure, whenever possible, the participation of a minimum sample of 25 members per capital;
5. Scheduling a meeting with these professionals and the researchers for data collection.

Originally, 2,069 dental surgeons who had been working in PHC for at least a year were identified. According to a statement from their coordinators, they were involved in OHP strategies. The response rate obtained for the set of participating cities was 87.9%. Table 1 presents the proportion of responses per city, starting with the described sampling plan. For data collection, participants attended an event carried out in each Brazilian capital, lasting an average of three hours each, scheduled in two subsequent sessions:

1. Individual and self-applicable tool. Interviews with 1,848 dental surgeons (in the end, after procedures conducted to verify the consistency in order to make the base robust, there were 1,819 valid responses). All respondents were asked to describe a single OHP strategy with which they had been involved in PHC, at their choice, with the recommendation that the strategy should be the one they considered to have the highest potential, to promote oral health in the community. More specifically, four initial questions were answered about the identification of the strategy/intervention in which the professional was involved:
   • What is the strategy carried out?
   • Who carries it out?

Table 1. Response rate per city participating in the sampling plan, Brazil, 2014.

City and region	Estimation of respondents	Collection		Valid	
	Dental surgeons	n	%	n	%
Midwest region	387	293	75.7	281	72.6
Goiânia, GO	104	98	94.2	95	91.3
Cuiabá, MT	88	80	90.9	80	90.9
Campo Grande, MS	97	68	70.1	64	66
Brasília, DF	98	47	48	42	42.9
Northeast region	757	452	59.7	443	58.5
Natal, RN	95	79	83.2	73	76.8
Teresina, PI	89	65	73	64	71.9
Salvador, BA	79	51	64.6	51	64.6
Aracaju, SE	63	40	63.5	40	63.5
Recife, PE	85	50	58.8	49	57.6
Maceió, AL	80	46	57.5	46	57.5
São Luís, MA	84	47	56	47	56
João Pessoa, PB	82	45	54.9	45	54.9
Fortaleza, CE	100	29	29	28	28
North region	328	276	84.1	276	84.1
Belém, PA	36	44	122.2	44	122.2
Manaus, AM	98	99	101	99	101
Rio Branco, AC	37	36	97.3	36	97.3
Boa Vista, RR	19	15	78.9	15	78.9
Porto Velho, RO	46	33	71.7	33	71.7
Macapá, AP	54	36	66.7	36	66.7
Palmas, TO	38	13	34.2	13	34.2
Southeast region	291	572	196.6	565	194.2
São Paulo, SP	131	371	283.2	365	278.6
Vitória, ES	61	79	129.5	78	127.9
Belo Horizonte, MG	99	83	83.8	83	83.8
Rio de Janeiro, RJ	No information	39	-	39	-
South region	306	255	83.3	254	83
Curitiba, PR	150	158	105.3	157	104.7
Porto Alegre, RS	86	57	66.3	57	66.3
Florianópolis, SC	70	40	57.1	40	57.1
Total Brazil	2.069	1848	89.3	1819	87.9

- Where is it carried out?
- How is it carried out?

Then, the 23 indicators of the tool were filled out.

2. After all the forms were collected, the researchers in charge of data collection conducted a dialogic training about the subject, with the objective of promoting the reflection about health promotion strategies, based on the theoretical basics used in the research. This procedure was rigorously used in all participating cities, except for Rio de Janeiro, since the teams were not previously informed, neither was there an authorization for the activity with the researchers; data collection was conducted by municipal administrators of this capital, and sent by mail.

The database of this study is constituted of 1,819 OHP strategies that were reported by respondents and evaluated. This led to the classification by scores that is present in the tool. At first, the collected data were filtered to assess consistency. Right after, a robust database was analyzed in an exploratory manner, verifying the distribution of frequencies and scores obtained. The data were analyzed with the software SPSS v.21.0 and Microsoft Excel® for Mac 2011 v.14.1.0.

In order to identify the variation between the means of the intra and inter-regional capitals, the analysis of variance one-way ANOVA was used, and the post hoc analysis with the Games-Howell test (multiple comparisons for heterogeneous variances) was used to verify for differences between the dependent variables, whose mean differences considered significant were $p \leq 0.05$.

RESULTS

The first observation about the results is that the sample was heterogeneous, with great variance between the 26 Brazilian capitals and the Federal District. Using the one-way ANOVA, the variable city of origin demonstrated statistical significance to influence the result ($p \leq 0.01$). The mean final score obtained for the total sample was 71.3 (95%CI 70.4 – 72.1). Table 2 presents the descriptive statistics of the mean final score obtained per city and Brazilian region. The Games–Howell test demonstrated statistically significant differences concerning the central objective of this study, which was to assess the effectiveness potential of OHP strategies implemented in PHC in the capitals and regions of Brazil. Graph 1 shows the performance of capitals in the evaluation of the effectiveness potential of the assessed OHP strategies. Cities with better performance in the effectiveness potential evaluation, whose final score was equal to or higher than 75, were Rio de Janeiro, João Pessoa, Fortaleza, Belo Horizonte, Palmas, and São Paulo. Cities with worse performances were Boa Vista, Belém, Maceió, Macapá, Brasília, and Cuiabá.

Table2. Descriptive statistics of the mean final score per cities and regions, Brazil, 2014.

| City and region	n	Mean	95%CI	Minimum	Maximum
Midwest region	281	66.26	63.9 – 68.5	27	111
Campo Grande, MS	64	74.75	69.4 – 80.0	29	111
Goiânia, GO	95	65.27	60.8 – 69.7	27	108
Cuiabá, MT	80	62.63	58.9 – 66.2	27	97
Brasília, DF	42	62.48	58.7 – 66.2	40	95
Northeast region	443	69.25	67.6 – 70.8	27	113
João Pessoa, PB	45	81.87	77.6 – 86.1	48	109
Fortaleza, CE	28	78.54	72.9 – 84.1	56	104
Recife, PE	49	74.63	70.1 – 79.0	49	105
São Luís, MA	47	70.19	64.8 – 75.5	32	102
Aracaju, SE	40	69.48	65.1 – 73.8	41	103
Natal, RN	73	67.77	64.1 – 71.4	30	102
Salvador, BA	51	67.04	61.9 – 72.1	34	104
Teresina, PI	64	64.61	60.1 – 69.0	36	113
Maceió, AL	46	55.65	51.4 – 59.8	27	92
North region	276	64.45	62.1 – 66.7	23	107
Palmas, TO	13	77.31	69.7 – 84.8	61	99
Manaus, AM	99	71.47	68.5 – 74.3	30	104
Porto Velho, RO	33	70.45	64.7 – 76.1	40	105
Rio Branco, AC	36	67.11	61.9 – 72.3	28	91
Macapá, AP	36	56.83	51.1 – 62.5	29	94
Belém, PA	44	51.68	44.5 – 58.8	23	107
Boa Vista, RR	15	43.07	35.1 – 51.0	28	83
Southeast region	565	77.61	76.2 – 78.9	27	115
Rio de Janeiro, RJ [*]	39	92.59	87.8 – 97.3	66	115
Belo Horizonte, MG	83	77.61	74.5 – 80.7	34	107
São Paulo, SP	365	77.09	75.4 – 78.7	33	110
Vitória, ES	78	72.53	69.2 – 75.8	27	104
South region	254	73.85	71.8 – 75.8	38	114
Curitiba, PR	157	74.66	72.0 – 77.3	38	114
Florianópolis, SC	40	73.25	68.5 – 77.9	41	93
Porto Alegre, RS	57	72.04	67.6 – 76.4	38	101
Total Brazil	1819	71.3	70.4 – 72.1	23	115

[*]Result for the Southeast without RJ: n = 526; Mean = 76.49; 95%CI 75.15 – 77.84; Minimum = 27 – Maximum = 110.

Among the state capitals performance in the Southeast region, the city of Rio de Janeiro stands out, with mean score value above the average of the region and also above other Brazilian capitals. Belo Horizonte, São Paulo, and Vitória presented the same means, or very close, to the regional average. In the South region, only the city of Curitiba performed better than the mean of the region. However, even being below the regional average, the performance of Florianópolis and Porto Alegre is very similar, which suggests some homogeneity between the essentials that sustain the OHP strategies implemented by health teams in PHC in the region. In the Midwest region, only Campo Grande performed better than the rest of the region. Cities with worse performance in relation to the mean of the region were Goiânia, Cuiabá, and Brasília. Among the nine state capitals composing the Northeast region, performances above the regional mean were João Pessoa, Fortaleza, Recife, São Luis, and Aracaju. Natal, Salvador, Teresina, and Maceió were below average. In the North region, among the seven state capitals composing it, four capitals performed better than the mean of the region — Palmas, Manaus, Porto, and Rio Branco; Macapá, Belém, and Boa Vista were below the regional average.
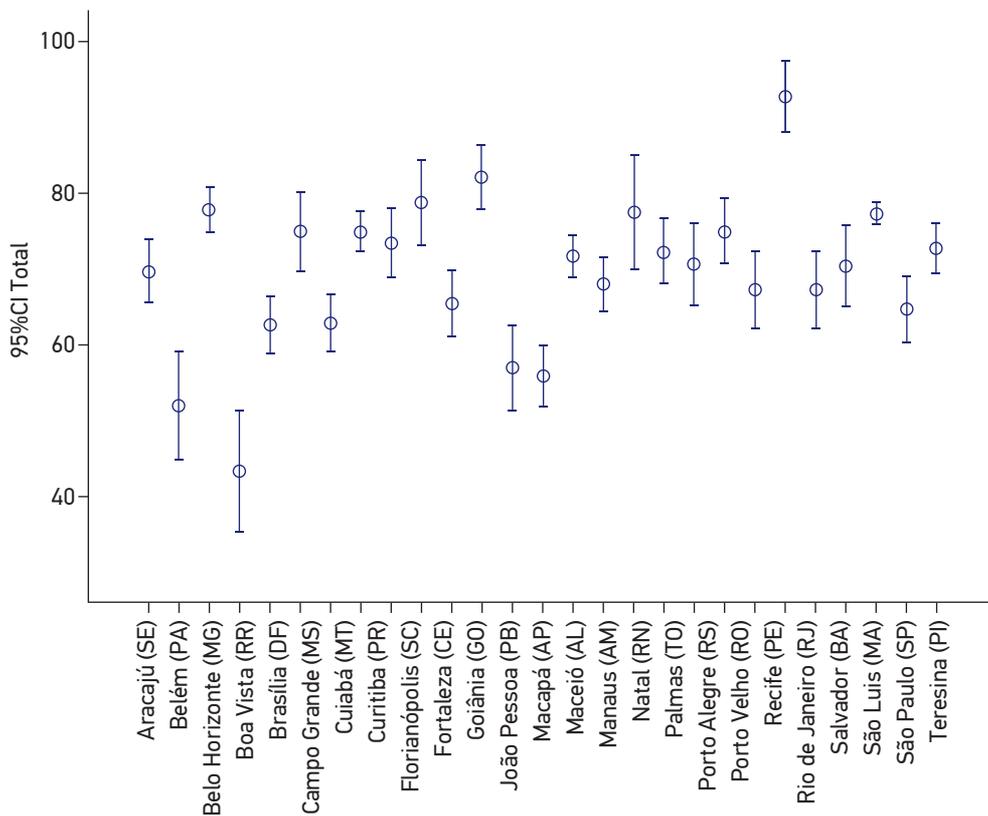
Graph 1. The effectiveness potential of oral health promotion strategies per capital, Brazil, 2014.

Another analysis about the performance of capitals considered its federative insertion, based on the five Brazilian macro-regions. Here, the sample was heterogeneous, with great variability in between regions. Aiming at identifying the score variation between the averages of the regions with the variation inside the region, the one-way ANOVA was performed. The variable Brazilian region demonstrated statistical significance to influence the result ($p \leq 0.01$). Also, the Games-Howell test showed significant mean differences in $p \leq 0.05$ between the dependent variables according to region, with a clear distinction between the South and the Southeast regions, which formed a block that was significantly different from the North-Northeast-Midwest block. Graph 2 presents the performance of five Brazilian regions. Therefore, by classifying the regions comparatively, from the best to the worst performance, the Southeast region stands out, followed by the South region and then the Northeast, Midwest, and North regions. Among the regions, only the Southeast region had final score higher than 75, which characterizes strategies that contemplate the pillars and values of health promotion; therefore, they have higher effectiveness potential.
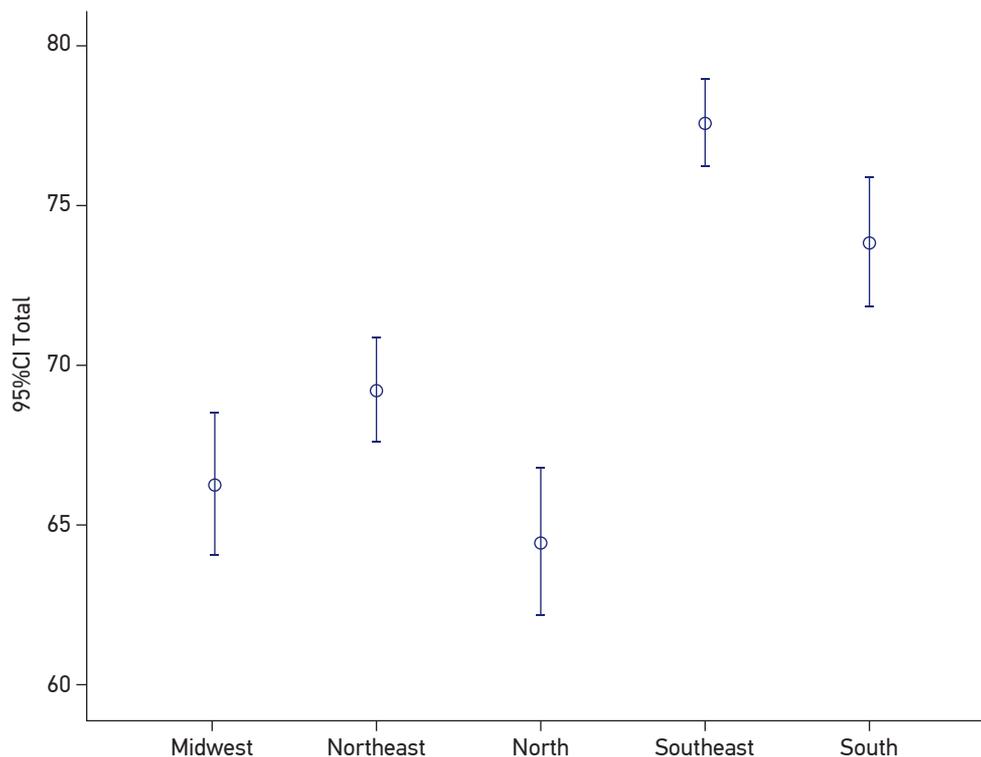
Graph 2. The effectiveness potential of oral health promotion strategies per region in Brazil, Brazil, 2014.

DISCUSSION

Clearly, the results obtained from the 26 Brazilian capitals and the Federal District by the evaluation of the 1,819 OHP strategies indicate a macro-regional contrast dividing the country. The South and Southeast regions have better positions in relation to the others regarding the scores obtained in the research instrument used. It is plausible to admit that these outcomes, which show different effectiveness potentials, are related to finalist epidemiological outcomes (dental caries, edentulism, among others) in the respective regions — this fact has been demonstrated by a national epidemiological oral health survey (OH)[20].

The intra-regional variation is also remarkable in some cases, since capitals of the same region presented different results, as is the case of João Pessoa (better) and Maceió (worse) in the Northeast; in the North region, Palmas (better) and Boa Vista (worse); or Campo Grande (better) and Brasília (worse), in the Midwest region. The South region was very homogeneous, whereas in the Southeast region it is worth to mention the performance of Rio de Janeiro, which can be considered as an outlier, suggesting inconsistency with the rest of the data. This difference may be related to a study limitation, because the procedures used for collecting information were not conducted as predicted, and that may have generated a selection or information bias. Another limitation of the study was the inconsistency of information of oral health coordinators as to the number of eligible professionals for the study in their respective capitals.

The results suggest that in specific capitals and/or regions, even in developed ones, that is, even if Brazilians have guaranteed access to strategies presumed as health promotion, there are inequalities. This happens because the strategies put in practice by oral health teams in PHC are not at all or little aligned to the pillars and values of the OHP, according to the adopted theory; therefore, there is poor potential for effectiveness[13].

Especially after the 2000s, it has been possible to observe an effort to promote more integration between oral health and health services in general, enabling the synergy of knowledge and practices pointing to health promotion and surveillance, besides the work with social determinants of the health-disease process, and the consequent incorporation of practices based on effectiveness evidence. This fact is still incipient, as criticized in the literature[21]. Some of the practices announced as "health promotion," especially in PHC networks, are still limited to strategies based on traditional models of educational-preventive interventions focused on lectures, tooth-brushing practices, mostly conducted in schools. They also coincide with many strategies reported by the interviewees, as interventions that present problems in operation and in the strength of scientific evidence, characterizing diverging and inconsistent actions[22]. Systematic literature reviews have restated the low strength of evidence regarding the impact of simple preventive/educational, behavioral interventions, restricted to the dental plan[15,23].

The limitations of these actions are owed to the fact that they do not produce sustainable improvements in the mid and long term for the oral health of the populations. They are palliative measures that ignore the structural factors determining the deficient oral health. As a paradox, one of the possible results of these actions focused on individuals is that inequities, instead of being reduced, can be aggravated, since those with more resources (materials, cognitive, contextual) are more prone to being benefitted by the interventions[24,25,26]. Therefore, it is important to advocate for OHP strategies that aim at reaching sustainable improvement, with multidimensional and complementary actions for the population. They should make (positive) protective health factors stronger, in order to prevent negative factors that can affect people, contextualized according to their life conditions and vulnerabilities.

The current National Health Promotion Policy in Brazil indicates the three governmental spheres as responsible for the establishment of instruments and indicators, to follow-up and evaluate the objectives defined in the reported policy. It also shows, as one of its guidelines, incentive to produce research in the health promotion field and the publication of effective initiatives for health professionals, managers, and users of SUS, considering participative methodologies and popular knowledge. It is up to the services to improve the understanding of health promotion in the PHC context, expanding the concept of health beyond the assistance to sick people (always necessary, however, insufficient), thus promoting the quality of life with interventions about the factors putting the population at risk, or already suffering inevitable damage. The improvement of instruments and techniques of evaluation is essential, as well as its institutionalization as a planning tool, that subsidizes decision-making processes and aiming at the improvement of health services[27].

The qualification of OHP in PHC is still challenging, as well as the structure of evaluation models[13,28,29]. Some initiatives have been experimented, such as the model of "Basic Care evaluation of Management," in the State of Santa Catarina, whose theory considered the evaluation of PHC based on the principles and guidelines of the SUS[27]. It also considered the National Program of Improvement of Access and Quality of Basic Care – PMAQ-AB, which predicts actions that qualify and strengthen the practice of PHC teams from different aspects, such as management, attention, and education all over the country. These evaluation models are applicable and useful for cities of different sizes, enabling the sensitization of managers for the need of improving the quality of oral health actions in the local level[27]. Therefore, studies indicate that PMAQ-AB was not designed to assess all components in health promotion[30]. This dimension was reduced to educational actions addressed to specific groups. So, PMAQ-AB has limitations and does not include the dynamics of implementation processes or the evaluation of effectiveness in OH strategies.

Facing the scenario described, this study contributes with the OHP sphere with the objective of including dimensions that analyze the development of public policies, of community engagement, of environmental and process-related changes concerning the

oral health action. This is a participative and informative study that shares the view[30] that improvements are possible regarding the alignment of OHP strategies, with principles of health promotion and values, making the best use of the applied resources and leading to better oral health[12,13].

Inequities in oral health owing to local and regional differences observed in this study within the five regions of Brazil and also among each other show another important challenge faced by PHC: to promote equality to reach social justice[15]. It is observed that, in major metropolitan centers, the impact of urban conurbation and high levels of population mobility are factors that dilute the impact of health interventions in the so-called "target-populations." This occurrence requires qualification and valorization of the social role of PHC professionals, and the implementation of policies that clearly predict the facing of DSS in an inter-sectorial manner, comprehending the health regions[16].

CONCLUSION

The difference observed in the comparative analysis between cities and regions with better and worse performances shows the diversity of fundamentals that sustain the assessed strategies. Even though advances have been recognized in the incorporation of new knowledge and in OHP practices in the last decade, in the public Brazilian sphere, there is still a challenging set of problems involving the epidemiological profile of oral diseases and the resoluteness of care remains alive in the political, scientific, and service management debate.

Developing actions in this direction requires an agenda of healthy public policies, as central reference, for the institutionalized oral health action strengthening compromised structures and processes with the promotion of health. Moreover, the proactive knowledge acquisition is necessary to substantiate consistent practices and the continuing education of the health workforce.

From the same perspective, and as a result of the implementation of PNSB, centered on OHP and surveillance, the improvement and investment in evaluation strategies is required, in order to support the decision-making about the oral health services management. Institutional commitment is necessary in the public sphere by means of the development of new studies, aiming at assessing practices and supporting the management of PHC. This implies the use of methodologies that enable assessing not only the quantitative epidemiological results and the impact of interventions, but also the political and social process to reach the goals in a sustainable manner.

ACKNOWLEDGMENTS

REFERENCES

1. Brasil. Pacto pela Saúde, 2006. Portaria nº 399, de 22 de fevereiro de 2006. Disponível em: http://conselho.saude.gov.br/webpacto/volumes/01.pdf

2. Brasil. Ministério da Saúde. Diretrizes da Política Nacional de Saúde Bucal: Ministério da Saúde. Brasília: 16p.; 2004. Disponível em: http://conselho.saude.gov.br/web_comissoes/cisb/doc/politica_nacional.pdf

3. Brasil. Ministério da Saúde. Política Nacional de Atenção Básica – PNAB. Brasília: 110 p.; 2012. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/politica_nacional_atencao_basica.pdf

4. Brasil. Ministério da Saúde. Secretaria de Vigilância em Saúde, Secretaria de Atenção à Saúde. Política Nacional de Promoção da Saúde - PNPS Brasília: 60p.; 2006. 3 ed. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/PoliticaNacionalPromocaoSaude.pdf

5. Brasil. Ministério da Saúde. Política Nacional de Promoção da Saúde: PNPS: revisão da Portaria MS/GM nº 687, de 30 de março de 2006, (2015). Disponível em: http://portalsaude.saude.gov.br/images/pdf/2015/abril/20/PNPS-2015-final.pdf

6. Heidmann ITSB, Almeida MCP, Boehs AE, Wosny AM, Monticelli M. Promoção à saúde: trajetória histórica de suas concepções: Texto Contexto Enferm, Florianópolis, 2006; 15(2): 352-8. Disponível em: http://www.scielo.br/pdf/tce/v15n2/a20v15n2

7. McQueen DV, Jones CM. Global perspectives on health promotion effectiveness: Springer; 2007. 425p.

8. WHO. World Conference on Social Determinants of Health 2012. Disponível em: http://www.who.int/sdhconference/resources/Conference_Report.pdf

9. Westphal MF. Avaliação e monitoramento das práticas de promoção da saúde relacionadas às doenças e agravos não transmissíveis na cidade de São Paulo: relatório final. São Paulo: s.n; 2008. Disponível em: http://www.prefeitura.sp.gov.br/cidade/secretarias/upload/relatorioenviadoCNPQDANT_1256129352.pdf

10. Barata RB. Desigualdades Sociais e Saúde. In: Campos GWS, Minayo MCS, Akerman M, Drumond Jr. M, Carvalho YM, organizadores. Tratado de Saúde Coletiva. 2. ed. São Paulo-Rio de Janeiro. Editora Hucitec-Fiocruz; 2009. p. 457-86.

11. Akerman M. Território, governança e articulação de agendas. São Paulo, Centro de Estudos, Pesquisa e Documentação em Cidades e Municípios Saudáveis. 2004. Disponível em: http://www.conseg.sp.gov.br/Gerenciador/midia/download/30.pdf

12. Kusma SZ, Moysés ST, Moysés SJ. Avaliação da Efetividade de Estratégias de Promoção da Saúde Bucal: ferramenta de avaliação. Curitiba, 2010. Disponível em: http://www.universidadesaudavel.com.br/wp-content/uploads/downloads/2015/04/Ferramenta.pdf

13. Kusma SZ, Moysés ST, Moysés SJ. Health promotion: perspectives for evaluation of oral health in primary healthcare. Cad Saúde Pública. 2012; 28(Suppl): s9-s19.

14. Moysés SJ. O futuro da Odontologia, no Brasil e no mundo, sob o ponto de vista da Promoção da Saúde (Opinião). Rev Bras Odontol. 2008; 16: 10-3.

15. Moysés SJ. Inequalities in oral health and oral health promotion. Braz Oral Res. 2012; 26 Suppl 1:86-93.

16. Bueno RE, Moysés ST, Bueno PAR, Moysés SJ. Determinantes sociais e saúde bucal de adultos nas capitais do Brasil. Rev Panam Salud Publica. 2014; 36(1): 17-23.

17. Pucca Junior GA, Lucena EHG, Cawahisa PT. Financing national policy on oral health in Brazil in the context of the Unified Health System. Braz Oral Res. 2010; 24: 26-32.

18. de Salazar L. Feasibility for health promotion under various decision-making contexts. Global perspectives on health promotion effectiveness: Springer; 2007. p. 353-65.

19. de Salazar L. Efectividad en promocion de la salud y salud publica. reflexiones sobre la practica en America Latina y propuestas de cambio. Universidad del Valle; 2009. 391 p.

20. Moysés SJ, Pucca Junior GA, Paludetto Junior M, Moura Ld. Avanços e desafios à Política de Vigilância à Saúde Bucal no Brasil. Rev Saúde Pública. 2013; 47: 161-7.

21. Moretti AC, Teixeira FF, Suss FMB, Lawder J, Lima L, Bueno RE, et al. Intersetorialidade nas ações de promoção de saúde realizadas pelas equipes de saúde bucal de Curitiba (PR). Cien Saúde Colet. 2010; 15(Supl 1): 1827-34.

22. Santos APP, Nadanovsky P, Oliveira BH. Survey of Brazilian governmental health agencies shows conflicting recommendations concerning oral hygiene practices for children. Cad Saúde Pública. 2010; 26: 1457-63.

23. Adair PM, Burnside G, Pine CM. Analysis of health behaviour change interventions for preventing dental caries delivered in primary schools. Caries Research. 2013; 47(Supl 1): 2-12.

24. Yevlahova D, Satur J. Models for individual oral health promotion and their effectiveness: a systematic review. Aust Dent J. 2009; 54(3): 190-7.

25. Watt RG. Strategies and approaches in oral disease prevention and health promotion. Bull World Health Organ. 2005; 83(9): 711-8.

26. Watt RG. From victim blaming to upstream action: tackling the social determinants of oral health inequalities. Community Dent Oral Epidemiol. 2007; 35(1): 1-11.

27. Colussi CF, Calvo MCM. An evaluation model for oral health in primary care. Cad Saúde Pública. 2011;27(9):1731-45.

28. Starfield B. Atenção Primária: equilíbrio entre necessidades de saúde, serviços e tecnologia. Brasília: UNESCO, Ministério da Saúde; 2004. 726p. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/atencao_primaria_p1.pdf

29. Campos CEA. Estratégias de avaliação e melhoria contínua da qualidade no contexto da Atenção Primária à Saúde. Rev Bras Saúde Matern Infant. 2005; 5(supl. 1): S63-9.

30. Cardoso ACC, Santos Júnior RQ, Souza LEP, Barbosa MBCB. Inserção da equipe de saúde bucal no PSF um desafio para a melhoria da qualidade de atenção à saúde. Rev Baiana de Saúde Públ. 2014; 26(1-2): 94.