

# More Doctors Program: mapping and analysis of academic production in the period 2013-2016 in Brazil

*Programa Mais Médicos: mapeamento e análise da produção acadêmica no período 2013-2016 no Brasil*

Maria Guadalupe Medina<sup>1</sup>, Patty Fidelis de Almeida<sup>2</sup>, Juliana Gagno Lima<sup>3</sup>, Débora Moura<sup>4</sup>, Ligia Giovanella<sup>5</sup>

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<sup>1</sup>Universidade Federal da Bahia (UFBA), Instituto de Saúde Coletiva (ISC) - Salvador (BA), Brasil.  
Orcid: <https://orcid.org/0000-0001-7283-2947>  
[medina@ufba.br](mailto:medina@ufba.br)

<sup>2</sup>Universidade Federal Fluminense (UFF), Instituto de Saúde Coletiva (ISC) - Rio de Janeiro (RJ), Brasil.  
Orcid: <https://orcid.org/0000-0003-1676-3574>  
[pattyfidelis@id.uff.br](mailto:pattyfidelis@id.uff.br)

<sup>3</sup>Universidade Federal do Oeste do Pará (Ufopa), Instituto de Saúde Coletiva (Isco) - Santarém (PA), Brasil.  
Orcid: <https://orcid.org/0000-0002-5576-0002>  
[julianagagno@gmail.com](mailto:julianagagno@gmail.com)

<sup>4</sup>Universidade Federal da Bahia (UFBA), Instituto de Saúde Coletiva (ISC) - Salvador (BA), Brasil.  
Orcid: <https://orcid.org/0000-0003-1526-4474>  
[deborah.moura@hotmail.com](mailto:deborah.moura@hotmail.com)

<sup>5</sup>Fundação Oswaldo Cruz (Fiocruz), Centro de Estudos Estratégicos (CEE) - Rio de Janeiro (RJ), Brasil.  
Orcid: <https://orcid.org/0000-0002-6522-545X>  
[ligiagianella@gmail.com](mailto:ligiagianella@gmail.com)

**ABSTRACT** *With the purpose of strengthening Primary Health Care (PHC) in Brazil, the More Doctors Program (PMM) was created in 2013, structured around three strategic axes. This study aimed to analyze the scientific production in the PMM, identifying the relevance of the studies and their effects to the policy and elaborating a synthesis of the main themes. The search was carried out in the Regional Portal of the Virtual Health Library (VHL) and in the Knowledge Platform of the PMM, with 409 documents being identified. After exclusion criteria, 47 scientific articles were selected. The results showed that 55% of studies focused on the 'emergency doctors provision' axis, 32% presented general policy assessments, 4% focused on provision/infrastructure and only 9% focused on training. Of the articles selected, 22 were considered of high and medium relevance. Furthermore, 32 publications identified the effects of the PMM (29 identified positive effects; and, in only 3, positive and negative effects were equivalent). In the thematic analysis, the following stand out: equity, efficacy, professional training, PMM implementation, work practices and processes, media approach and PMM political analysis. Of an extensive nature, the analyzes pointed out clues about the directionality of the Program, its weaknesses and needs that are required for a research agenda for the coming years.*

**KEYWORDS** More Doctors Program. Primary Health Care. Health evaluation. Health programs and plans. Brazil.

**RESUMO** *Com o propósito de fortalecer a Atenção Primária à Saúde (APS) no Brasil, o Programa Mais Médicos (PMM) foi criado em 2013, estruturado em três eixos estratégicos. Este estudo teve como objetivo analisar a produção científica no PMM, identificando a relevância dos estudos e seus efeitos para a política e elaborando uma síntese dos principais temas. A busca foi realizada no Portal Regional da Biblioteca Virtual em Saúde e na Plataforma de Conhecimento do PMM, sendo identificados 409 documentos. Após critérios de exclusão, selecionaram-se 47 artigos científicos. Os resultados mostraram que 55% dos estudos debruçaram-se sobre o eixo 'provisão emergencial de médicos', 32% apresentavam apreciações gerais da política, 4% trataram do provimento/infraestrutura e apenas 9% trataram da formação. Dos artigos selecionados, 22 foram considerados de alta e média relevância. Ademais, 32 publicações identificaram efeitos do PMM (29 identificaram efeitos positivos; e, em apenas 3, efeitos positivos e negativos foram equivalentes).*

*Na análise temática, apareceram como destaque: equidade, eficácia, treinamento profissional, implementação do PMM, práticas e processos de trabalho, abordagem midiática e análise política do PMM. De natureza extensiva, as análises apontaram pistas sobre a direcionalidade do Programa, suas fragilidades e necessidades que se impõem para uma agenda de pesquisa para os próximos anos.*

**PALAVRAS-CHAVE** Programa Mais Médicos. Atenção Primária à Saúde. Avaliação em saúde. Planos e programas de saúde. Brasil.

## Introduction

In Brazil, in a scenario of intense political and popular pressure, by the middle of 2013, the federal government launched the More Doctors Program (PMM), institutionalized by Law nº 12.871/2013<sup>1</sup>. The PMM was structured in three strategic axes: i) changes in medical training, with investment in the creation of graduation and residency vacancies and new Medical courses based on revised curricular guidelines; ii) expansion and improvement of the infrastructure of the Basic Health Units (BHU); and iii) emergency provision of Brazilian and foreign doctors for primary care in regions with scarcity of supply, the axis of the policy denominated More Medical Project for Brazil (PMMB)<sup>1</sup>. The Program came as an institutional response to the street demonstrations that put the health prioritization on the scene<sup>2</sup>, seeking to face the problem of scarcity and hard fixation of doctors in the Country, especially in Primary Health Care (PHC)<sup>1-3</sup>.

Problems of scarcity, distribution and fixation of health professionals in remote and disadvantaged areas are a challenge for the vast majority of countries<sup>4</sup>. In Brazil, in the last decades, a more strategic reorganization

of policies to overcome the insufficient and inadequate provision of health professionals with strategies for expanding training, professional qualification and valorization of the health workforce was observed<sup>5</sup>.

Furthermore, there were, in 2013, strong disparities in the regional distribution of doctors in the Country and still within each region and state, with a concentration in capitals and larger urban centers, to the detriment of the interior, smaller municipalities and less developed regions<sup>6</sup>. In that year, Brazil had a ratio of 2.0 doctors registered per thousand inhabitants, a ratio that was reduced to 1.4 if only doctors in the formal market were considered, with a high disparity in the distribution between states, varying from 2.8/1000 inhabitants in Rio de Janeiro to 0.4 doctors in Maranhão, a state of lower socioeconomic development<sup>6</sup>. The PMMB intended to face the supply scarcity and reduce inequalities in distribution, for this purpose, it defined priority areas of greater social vulnerability for emergency provision. Since the accession of Brazilian doctors in previous internationalization programs was very low, the possibility of accession of foreign doctors was opened, which was accomplished, mainly, through an agreement

made with the Cuban government with the support of the Pan American Health Organization (PAHO). Until the year 2015, the PMMB incorporated in the primary health care of the Unified Health System (SUS) 18 thousand doctors, being 79% Cubans.

The implementation of the program was accompanied, from the initial stages, by vigorous academic production<sup>7</sup> and initiatives to disseminate and systematization of work. This production, already quite voluminous despite the short time, justifies the accomplishment of a systematization effort, with a view to improving the policy and elucidating the possible contributions of the PMM to the consolidation of PHC in Brazil.

Thus, this article presents the mapping and analysis of the academic production on the PMMB from its institutionalization in 2013 to 2016, seeking to characterize it from specific criteria, identify its relevance and the effects of the policy and, especially, elaborate a synthesis of the main themes.

## Methodology

This work systematizes and analyzes the scientific production on PMMB. Although research reports and monographs have been identified, only published empirical articles inserted in bibliographic databases from 2013 until the date of November 15, 2016 were included.

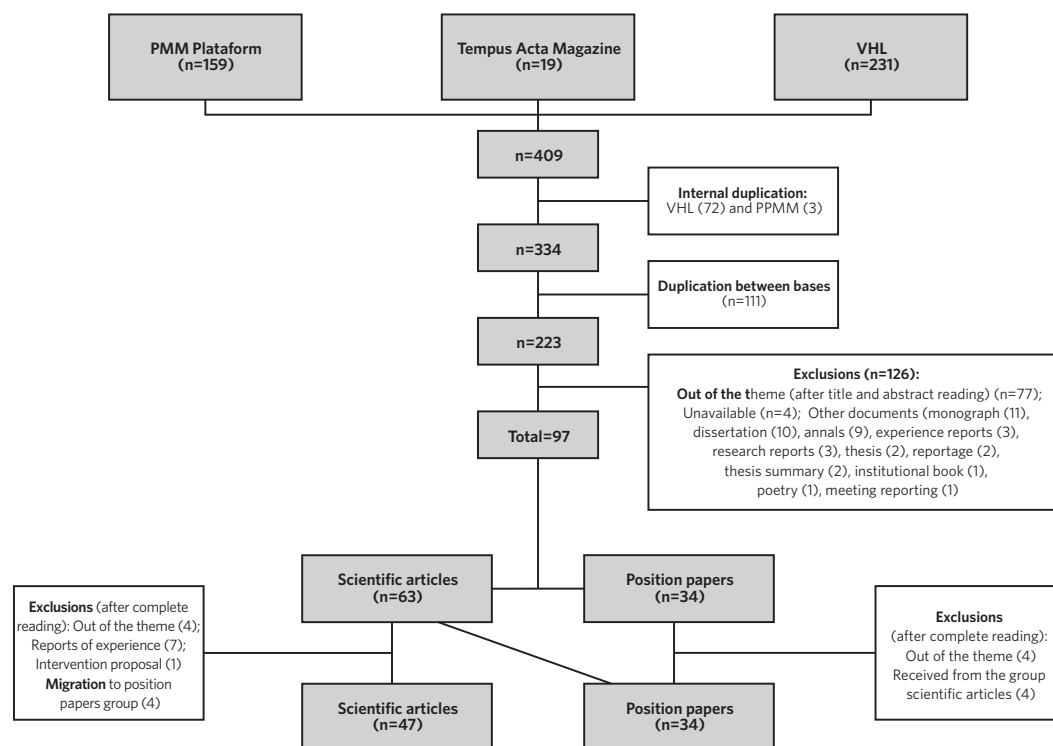
The search of the documents was carried out in the Regional Portal of the Virtual

Health Library (VHL) and the Knowledge Platform of the PMM (PHC Network/PAHO), in addition to including a special issue of the 'Tempus Magazine of Collective Health' since several articles of this periodical did not appear in any of the bases consulted, at that moment. For the VHL search, the syntaxes More Doctors Program and More Doctors Project were used in the title or the abstract of the work.

97 articles were identified, classified as 'scientific article' (63) and 'position paper' (34). It was called 'scientific article' any indexed journal publication, resulting from empirical study with primary or secondary data, or derived from systematic or non-systematic literature review, or from document review. As 'position paper', any publishing publication, interview or debate was designated, in addition to those explicitly referred to as such, which clearly expressed value judgments or points of view about the PMM. In this article, the results of the mapping and analysis of scientific articles are presented.

After reading the 63 selected scientific articles, 12 were excluded (out of the theme, experience report, intervention proposal); and 4, redirected to the group of position papers, totaling 47 analyzed scientific articles. As the objective was an exhaustive review of production on the PMM, all articles were included in the analysis, regardless of relevance or methodology. *Figure 1* summarizes the steps of the process of selection and classification of the publications.

Figure 1. Stages of the selection and classification process of publications about the More Doctors Program, Brazil, 2016



Source: Own elaboration.

For the analysis of the 47 scientific articles, successive approximations were carried out, in order to contemplate an extensive and panoramic appreciation of the whole production, in a first moment, and intensive, in sequence, allowing to highlight its main contributions to the analysis of the PMM.

Extensive analysis included bibliometric analysis (year of publication, source of funding, periodical, institution of the first author, state and region of the institution of the first author), as well as other categories such as study scope, policy axis, methodological approach (type of study and subjects of the research) and relevance and effects of the policy.

For the relevance analysis, the following criteria were considered: consistency of the findings based on implicit quality criteria,

but guided by scientific literature of quality assessment of studies<sup>8,9</sup>, robustness of the study, originality of the approach, potential contributions to guide the course of policy, to identify knowledge gaps and new research issues.

A thematic analysis was also carried out, grouping the articles by affinity into seven categories: equity, effectiveness, professional training, implementation, work practices and process, media approach and political analysis. The themes were not defined previously, instead, emerged from the studies.

All 47 articles were read and categorized independently by the first two authors, and differences of opinion were discussed and resolved, reaching a consensus regarding the categorization of the set of articles.

## Results and discussion

### Bibliometric analysis and selected categories

Most of the 47 articles with study results were published in 2016 (70.2%), three years after the implementation of the PMM. The special issue of the journal 'Science and Collective Health' (v. 21, n. 9), of 2016, brings together most of the empirical studies about the Program. The majority (79%) did not mention funding sources. In six articles, reference was made to studies funded by a federal public notice. The others had funding from the Ministry of Health and from local development agencies.

In relation to the institution of the main author, nine were from the National University of Brasília, followed by three articles by researchers from the Federal University of Minas Gerais. The other productions were concentrated in the Southeast region (12), mainly in the states of Minas Gerais and São Paulo. In only three articles the main researcher was linked to the teaching institution of the North region.

Most articles analyzed (55%) by 2016 focused on the 'Emergency providing of Brazilian and foreign doctors' axis. Of the 47, 32% presented general policy analyzes without focusing on one of the axes, for example, legal, media and implementation analyzes. Only 4% dealt with provision and infrastructure (*chart 1*).

Most of the articles (47%) presented results of studies with national coverage, using, mainly, secondary databases of the National Register of Health Establishments, databases provided by the Ministry of Health with the distribution of PMM doctors, results of the Improvement Program Access and Quality of Primary Care, Municipal Human Development Index, among others. In almost a third of the cases the coverage was municipal, with the percentage of other

cuts being lower: 13%, 8.5% and 4%, respectively, for state, local and macro-regional coverage (*chart 1*).

There was a balance between methodological approaches with a slight predominance of qualitative studies (47%). If the distribution is observed over the four years, changes are identified, with a predominance of qualitative studies in the first years and increase of the quantitative ones in 2016, with the use of secondary data and, some, with the production of primary data from surveys with professionals and application of instruments such as the Primary Care Assessment Tool (PCATool) (*chart 1*).

Most of the results of the scientific articles (81%) came from empirical studies with primary and/or secondary data sources. Three articles classified as 'legal essays' were identified that analyzed issues related to the constitutionality of the PMM. Review articles (13%) dealt with the analysis of production on PMM, Program guidelines, initial stages of implementation, and others (*chart 1*).

Of the 47 scientific articles analyzed, 16 (34%) used primary sources produced from interviews, focus groups and surveys. Doctors, users and managers were the main subjects of the studies. The low number of studies produced from primary sources is emphasized, that is, with the actors involved, which can be explained by the short time of implementation of the PMM (*chart 1*).

The 47 articles were analyzed regarding relevance to the policy and classified in low, medium and high relevance. Of the total, 22 were considered of high and medium relevance to the policy. Approximately half (53%) of articles were classified as of low relevance, mainly due to methodological and conceptual fragilities. Some did not analyze PMM, but used it as a case for approaching another topic, and others described very localized studies with prescriptive discussions and little critical appreciation.

The results presented in the scientific articles were also categorized as to the effects

of PMM: positive, null or negative. In part of the articles (32%) it was not possible to identify effects or, therefore, the article did not intend to evaluate them, since these were reviews or legal analyzes. For 32 articles, it was possible to identify effects of the

Program in the most diverse areas. Of these, 29 (62%) identified positive effects; and in only 3 (6%) the positive and negative effects were equivalent, being classified as null. In none of the analyzed articles there was a predominance of negative results (*chart 1*).

Chart 1. Analysis of the scientific articles on the PMM according to the axis, methodology (scope, approach, type of study, subjects) and effects of the policy, 2013-2016, Brazil

CATEGORIES	n	%
<b>Axis of the PMM (n=47)</b>		
Emergency Provision	27	55,3
Training	4	8,5
Infrastructure and Provision	6	4,3
General	10	31,9
<b>Coverage (n=47)</b>		
Local	4	8,5
Municipal	13	27,6
Health Regional	0	12,8
State	6	4,3
Macro regional	2	46,8
National	22	100,0
<b>Approach (n=47)</b>		
Quantitative	20	42,5
Qualitative	22	46,9
Quantitative/Qualitative	5	10,6
<b>Type of Study (n=47)</b>		
Empirical	38	80,9
Review	6	12,8
Legal	3	6,3
<b>Subjects (n=56)</b>		
Users	6	10,7
PMM Doctors	7	12,5
Teams of PHC	3	5,4
Managers	5	8,9
Representatives of the Municipal Health Council	1	1,8
Tutors/supervisors	2	3,6
Medical students	2	3,6
Not applicable	30	53,5

Chart 1. (cont.)

Effects (n=47)		
Positive	29	61,7
Null	3	6,4
It was not possible to identify/it does not evaluate effects	15	31,9

Source: Own elaboration.

### Thematic analysis of results: contributions to the improvement of the policy

The themes covered by the 47 scientific articles were grouped into the following categories: equity, effectiveness, professional training, implementation, work practices and process, media approach, political analysis and other topics (perception/satisfaction of exchange doctors, infrastructure of health units), including in this category, also, a review article that systematized several articles with different themes. The distribution of articles according to the topics covered can be seen in *chart 2*.

One of the most studied aspects was equity, a theme debated in 19 of the 47 articles included in this study. It was analyzed, mainly, from the investigation of the distribution of the medical professional in the Brazilian municipalities, before and after the emergency provision, observing to what extent this distribution was coherent with the identified needs and priorities. The authors explored the changes through analysis before and after the publication of Law nº 12.871/2013<sup>1</sup>, observing studies of national and state coverage, with regional and municipal cuttings, and the assessment of the characteristics of the territories and health units benefited by the provision. Seven studies<sup>10-16</sup> analyzed the stability/turnover of these professionals in smaller municipalities, rural, remote, indigenous and quilombola communities.

Another form of approach of equity was

the measurement of improved access or reduction of inequalities in access to health services, especially in PHC. In ten articles<sup>13,16-24</sup>, the authors used strategies to estimate the performance of actions in primary care (scheduling, consultations, visits, examinations, referrals, health promotion, such as breastfeeding and group follow-up, among others) either through indicators produced by information systems, or through reports and interviews with users on the demand and supply of services. The exoneration of municipalities, especially the most vulnerable ones, in relation to expenses with provision of doctors was also considered an indicator of reduction of inequities, being analyzed in two articles<sup>15,25</sup>.

The second theme most addressed by the articles was the effectiveness of the PMM, including not only terminal effects on the health status of the populations, but also the perception and satisfaction of users with the Program. In all, 10 articles were included in this category<sup>10,13,16,19,23,25-29</sup>.

Half of the articles in this group focused on terminal effects of MMP<sup>13,23,25,27,28</sup>. Certainly, this type of analysis was limited due to the short time the Program existed. Indicators of hospitalizations for conditions sensitive to PHC, such as diarrhea, gastroenteritis and pneumonia, traditionally used as a proxy for effectiveness, were used in four studies, all with a municipal analysis unit<sup>13,23,25,27</sup>. Although most of them have reported positive results, the absence of more elaborate analyzes with historical series and

models with consistent control variables suggests that these results are taken with some caution.

Only one article used mortality indicators (avoidable death, premature, death due to external causes) in addition to low birth weight, to analyze the effectiveness of PMM<sup>25</sup>. Aggregate data analysis, however, does not allow more categorical conclusions. Finally, an article analyzed the effectiveness of the Program through the use of criteria and dimensions adopted in PCATool<sup>28</sup> comparing units with and without PMM in a municipality.

The perception/satisfaction of the users with the Program was analyzed in five articles<sup>10,16,19,26,29</sup>. Acceptability, local support, communication, access, reception, humanization, care, attention model and resolubility were considered in the analysis of user perception/satisfaction, evidenced through interviews, with results, in general, positive.

The dimension of vocational training was evaluated in six articles<sup>30-35</sup>, with only two of them<sup>30,31</sup> focusing specifically on the regulation of the medical workforce – a central issue in the PMM policy –, even though, in one case, only tangentially with use of secondary sources. In the others, the approach was qualitative, and the object was the learning experience or perception, whether of undergraduate students<sup>34,35</sup> or of the specialization courses offered to professionals hired by PMM<sup>32,33</sup>.

Although the impact of PMM on processes of professional training can only be observed in the medium and long term, it is important to draw attention to the need to invest more in evaluations of ongoing processes, especially regarding the directionality of training in relation to the purposes of the policy, as well as possible unintended side effects, such as the intensification of the privatization of medical graduation, as pointed out in one of the studies.

The implementation of the PMM was the central focus of investigation in four

articles<sup>15,22,24,36</sup>. The scope of the analysis was diverse in these studies, which made it possible, albeit in an incipient way, to capture aspects related to the scenario and to the implementation process of the policy at the national level<sup>36</sup>, state<sup>22</sup>, regional<sup>15</sup> and municipal<sup>24</sup> from the look of different social actors. The perception of the actors and their respective positions before the Program were highlighted as the axis of analysis of the articles.

Five studies emphasized in their approach the practices and work processes in the PMM scenario<sup>16,21,22,33,37</sup>. The techniques of analysis were primarily qualitative, with the exception of a quantitative study<sup>37</sup>, and the sources of information were, mainly, the doctors themselves: only the doctors linked to the program in two studies<sup>33,37</sup>; doctors and other local actors, of management, as well as supervisors and tutors in one study<sup>22</sup>; doctors, other health professionals and users in one study<sup>16</sup> and only other staff members in another study<sup>21</sup>. In no study there was direct observation of the practices.

The studies sought to map both the range and type of actions developed (number of procedures performed, promotion and prevention actions, and care practices) as well as the forms of organization adopted and the relationships between doctors and other professionals, trying to infer to what extent these changes pointed to alternative proposals for the organization of care and delivery of care or reinforced the maintenance of the biomedical model, while at the same time, sought to verify the trend in reaching historical guidelines of the SUS, as integrality and coordination of care.

The media was discussed in some articles<sup>36,38-41</sup>, being investigated its role as social actor and as a vehicle for publicizing the Program. With the exception of one article<sup>36</sup>, the methodological strategies used in these studies differed considerably from those adopted in the others and even from the usual approaches in the health field.



The set presents an innovative perspective on the analytical treatment of the Program and shows how the interest for PMM goes beyond the scope of health and education subsystems.

An expressive set of articles focused on PMM as a public policy<sup>24,36,42-47</sup>, performing a political analysis of the Program under different perspectives, theoretical references and dimensions. All of the studies used as a methodological strategy documentary analysis (official texts, scientific and legal literature), one of them including, also, search in websites and media<sup>36</sup>. They

leaned over the context of implementation of the program, the determinants and conditions of its emergence in Brazil, the dynamics and role of the different social actors, the debate on the constitutionality of the Program and the right to health, the possible innovations and the challenges of implementation in the Country.

Other specific themes emerged, secondarily and articulated to the aforementioned themes, being related in this group. Five articles dealt with the infrastructure of the PHC units<sup>12,20,22,32,48</sup>, and one article analyzed the perception/satisfaction of exchange doctors<sup>33</sup>.

Chart 2. Thematic analysis of scientific articles about the More Doctors Program, 2013-2016, Brazil

Results according to theme and subthemes	Pereira e col., 2009 <sup>16</sup>	Santos e col., 2016 <sup>10</sup>	Vargas e col., 2016 <sup>17</sup>	Silva Jr e col., 2016 <sup>30</sup>	Alencar e col., 2016 <sup>18</sup>	Melo e col., 2016 <sup>19</sup>	Alessio e Sousa, 2016 <sup>31</sup>	Macedo e col., 2016 <sup>36</sup>	Girardi e col., 2016 <sup>11</sup>	Lima e col., 2016 <sup>20</sup>	Giovanella e col., 2016 <sup>12</sup>	Soares Neto e col., 2016 <sup>48</sup>	Oliveira e col., 2016 <sup>16</sup>	Comes e col., 2016 <sup>21</sup>	Girardi e col., 2016 <sup>37</sup>	Comes e col., 2016 <sup>26</sup>	Lotta e col., 2016 <sup>42</sup>	Carvalho e col., 2016 <sup>65</sup>	Kemper e col., 2016 <sup>67</sup>	Lima e col., 2016 <sup>20</sup>	Thumé e col., 2016 <sup>32</sup>	Gonçalves e col., 2016 <sup>27</sup>	Terra e col., 2016 <sup>33</sup>	
<b>Equity</b>	◆	◆	◆	◆	◆	◆			◆	◆	◆	◆	◆	◆										
- coverage and distribution of doctors	✱								✱		✱	✱	✱											
- access to services / health actions / production of services			✱		✱	✱					✱					✱								
- stability / turnover of doctors		✱							✱		✱													
- exoneration of municipalities regarding expenses with medical supplies																								
<b>Effectiveness</b>		◆				◆								◆									◆	
- macro-structural performance indicators of PHC																								
- indicators of mortality																								
- indicators of hospitalizations due to sensitive conditions to PHC																							✱	
- criteria and indicators of PCATool																								
- perception/satisfaction of users		✱				✱										✱								
<b>Professional training</b>				◆			◆															◆	◆	
- regulation of the workforce				✱			✱																	
- graduation				✱																				
- medical residency				✱			✱																	
- specialization																						✱	✱	
<b>Implementation</b>								◆																
- implementation scenario								✱																
- process of implementation								✱																

Chart 2. (cont.)

	Miranda e Melo, 2016 <sup>13</sup>	Carrer e col., 2016 <sup>28</sup>	Silva e col., 2016 <sup>29</sup>	Mendonça e col., 2016 <sup>25</sup>	Mota e col., 2016 <sup>22</sup>	Nogueira e col., 2016 <sup>14</sup>	Silva e col., 2016 <sup>23</sup>	Mendonça e col., 2016 <sup>15</sup>	Pinto e Amaral, 2016 <sup>38</sup>	Pereira e col., 2015 <sup>16</sup>	Collar e col., 2015	Silva e Sousa, 2015 <sup>24</sup>	Luz e col., 2015 <sup>39</sup>	Couto e col., 2015 <sup>43</sup>	Morais e col., 2014 <sup>40</sup>	Pinto e col., 2014 <sup>44</sup>	Kamikawa e Motta, 2014 <sup>45</sup>	Garcia e col., 2014 <sup>46</sup>	Landim, 2013 <sup>41</sup>	Silva e Santos, 2015	Cerqueira e Alves, 2016 <sup>47</sup>	Souza e Paulette, 2015	Santos e col., 2015 <sup>34</sup>	Sena e col., 2015 <sup>35</sup>
<b>Practices and Work Process</b>																								
- scope of the practices of the EqSF																	◆	◆						
- organization / innovations of the WP																	◆	◆						
- care coordination																	◆	◆						
- relations between PC professionals																	◆	◆						
<b>Media approach</b>																								
- positioning of media actors																								
- political participation through Facebook/other digital media																								
- values served by the media																								
<b>Political analysis of PMM</b>																								
- institutional arrangements and articulation of actors																								
- instruments of the policy or program																								
- right to health																								
- constitutionality																								
<b>Other themes</b>																								
- perception/satisfaction of exchange doctors																								
- infrastructure of the PHC units																								
<b>Results according to theme and subthemes</b>																								
<b>Equity</b>																								
- coverage and distribution of doctors	◆																							
- access to services / health actions / production of services	◆																							
- stability / turnover of doctors	◆																							
- exoneration of municipalities regarding expenses with medical supplies	◆																							
<b>Effectiveness</b>																								
- macro-structural performance indicators of PHC	◆	◆	◆	◆																				
- indicators of mortality	◆	◆	◆	◆																				
- indicators of hospitalizations due to sensitive conditions to PHC	◆	◆	◆	◆																				
- criteria and indicators of PCATool	◆	◆	◆	◆																				
- perception/satisfaction of users	◆	◆	◆	◆																				
<b>Professional training</b>																								
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- implementation scenario																								
- process of implementation																								

Chart 2. (cont.)

<b>Practices and Work Process</b>	◆	◆					
- scope of the practices of the EqSF	✱	✱					
- organization / innovations of the WP	✱	✱					
- care coordination	✱						
- relations between PC professionals	✱						
<b>Media approach</b>		◆	◆	◆		◆	
- positioning of media actors			✱	✱			
- political participation through Facebook/other digital media						✱	
- values served by the media		✱					
<b>Political analysis of PMM</b>			◆	◆	◆	◆	◆
- institutional arrangements and articulation of actors			✱				
- instruments of the policy or program				✱	✱	✱	✱
- right to health						✱	✱
- constitutionality							
<b>Other themes</b>	◆						
- perception/satisfaction of exchange doctors							
- infrastructure of the PHC units	✱						

Source: Own elaboration.

PHC - Primary Health Care; EqSF - Family Health Team; WP - Work Process.

## Final considerations

This article aimed to systematize the scientific production on PMM in Brazil, characterizing the main studies published between 2013 and 2016. The strength of the production, involving researchers from the most diverse research institutions of the Country, was indicative of the importance of this policy in the national context.

The PMM was designed as a policy aimed at strengthening PHC, aiming to give materiality to the right to health and universal and quality access to health services. It was conceived, therefore, as an articulated project to the public system, incorporating the basic guidelines of SUS and the model of organization of primary care.

Of extensive nature, the analyzes undertaken were able to point out some clues about the directionality of the PMM and its weaknesses. The filling of care gaps, through

the provision of doctors, constitutes one of the axes of the Program, incapable of, separately, changing the material conditions of the provision of PHC services in Brazil. The emergency provision axis concentrated most of the publications until the year 2016. It was around this axis, as well, that the media spotlight and the greater financial and human investments of resources destined to the Program were concentrated.

Although Law n° 12.871<sup>1</sup> emphasizes changes, mainly, in the graduation and residency of medical courses, and that several authors<sup>49-52</sup> point to training as one of the most vigorous fields to promote sustainable changes in the provision of professionals, of the 47 articles analyzed, only 4 are about training. In addition to the insufficient number of doctors working in the PHC and the unequal distribution, training and qualification represents one of the greatest challenges for SUS and one

of the most structuring measures, capable of providing a sustainable basis for maintenance and continuity of the changes made possible through the PMM. In this sense, research on training processes should be a priority in research agendas.

Another axis of the program that is not present in the publications refers to the infrastructure of the BHUs, an aspect that is also pointed out as essential for the qualification of PHC and a decrease in the number of turnovers of doctors<sup>51,53</sup> and for the expansion of the scope of primary care teams<sup>37</sup>. Only two articles<sup>12,48</sup> dealt with the infrastructure conditions of the BHU through typologies, relating them to the distribution of doctors of the PMM.

It was not the purpose of this article to deepen the analysis of the results produced by the PMM. Even so, it was possible to consolidate the type of observed effect (positive, negative or null) in the studies carried out, and to verify the consistency of the findings, since in only three articles there was mention

of negative effects, balanced with positive ones. Even considering the incipience of the PMM and the need to deepen methodologically careful studies, it is undeniable that such evidence attests to the success of the policy. In this sense, the results of the studies constitute a good argument for those who bet on the continuity of the Program, especially in a scenario marked by unpopular and austerity policies, such as the one that, today, Brazil is experiencing.

## Collaborators

Medina MG and Almeida PF were responsible for the conception of research, production, analysis and interpretation of the data and writing of the article. Lima JG and Moura D were responsible for the production, analysis and interpretation of the data. Giovannella L collaborated with the writing and the final revision of the article. ■

## References

1. Brasil. Lei nº 12.871, de 22 de outubro de 2013. Institui o Programa Mais Médicos, altera a Lei nº 8.745, de 9 de dezembro de 1993, e nº 6.932, de 7 de julho de 1981, e dá outras providências. Diário Oficial da União. 23 Out 2013.
2. Magno LD, Paim JS. Dos clamores das ruas aos rumores no Congresso: uma análise da conjuntura recente da saúde no Brasil. RECIIS. 2015 out-nov; 9(4):1-14.
3. Molina J, Suárez J, Cannon LRC, et al. O Programa Mais Médicos e as redes de atenção à saúde no Brasil. Divulg Saúde Debate. 2014 out; 52:190-201.
4. Dal Poz MR. A crise da força de trabalho em saúde. Cad Saúde Pública. 2013 out; 29(10):1924-1926.
5. Carvalho M, Santos NR, Campos GWS. A construção do SUS e o planejamento da força de trabalho em saúde no Brasil: breve trajetória histórica. Saúde debate. 2013 jul-ago; 37(98):372-387.
6. Scheffer M. Demografia médica no Brasil. Cenários e indicadores de distribuição. Conselho Regional de Medicina do Estado de São Paulo (Cremesp), Conselho Federal de Medicina (CFM) [relatório de pesquisa]. São Paulo: Universidade de São Paulo, Faculdade de Medicina, Departamento de Medicina Preventiva; 2013. v. 2. 282 p.
7. Kemper ES, Mendonça AVM, Sousa MF. Programa Mais Médicos: panorama da produção científica. Ciênc Saúde Colet. 2016 set; 21(9):2781-2792.
8. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care. 2007 dez; 19(6):349-357.
9. Moher D, Liberati A, Tetzlaff J, et al. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoSMed. 2009 jul; 6(6):e1000097.
10. Santos MAM, Souza EG, Cardoso JC. Avaliação da qualidade da estratégia saúde da família e do Programa Mais Médicos na área rural de Porto Velho. Rev Eletrôn Gestão Soc. 2016 maio-ago; 10(26):1327-1334.
11. Girardi SN, Van Stralen ACS, Cella JN, et al. Impacto do Programa Mais Médicos na redução da escassez de médicos em Atenção Primária à Saúde. Ciênc Saúde Colet. 2016; 21(9):2673-2682.
12. Giovanella L, Mendonça MHM, Fausto MCR, et al. A provisão emergencial de médicos pelo Programa Mais Médicos e a qualidade da estrutura das unidades básicas de saúde. Ciênc Saúde Colet. 2016 set; 21(9):2695-2706.
13. Miranda AS, Melo DA. Análise comparativa sobre a implantação do Programa Mais Médicos em agregados de municípios do Rio Grande do Sul, Brasil. Ciênc Saúde Colet. 2016 set; 21(9):2833-2844.
14. Nogueira PTA, Bezerra AFB, Leite, AFB. Características da distribuição de profissionais do Programa Mais Médicos nos estados do Nordeste, Brasil. Ciênc Saúde Colet. 2016 set; 21(9):2885-2894.
15. Mendonça FF, Mattos LFA, Oliveira EBD, et al. Participação dos municípios de pequeno porte no Projeto Mais Médicos para o Brasil na macrorregião norte do Paraná. Ciênc Saúde Colet. 2016 set; 21(9):2903-2911.
16. Pereira LL, Silva HP, Santos LMP. Projeto Mais Médicos para o Brasil: estudo de caso em comunidades Quilombolas. Rev Associação Bras Pesquisadores Negros. 2015 mar-jun; 7(16):28-51.
17. Vargas AFM, Campos MM, Vargas DS. O risco dos extremos: uma análise da implantação do Programa Mais Médicos em um contexto de volatilidade orçamentária. Rev Eletrôn Gestão Soc. 2016 maio-ago; 10(26):1313-1326.
18. Alencar APA, Xavier SPL, Laurentino PAS, et al. Im-

- pacto do Programa Mais Médicos na atenção básica de um município do sertão central nordestino. *Rev Eletrôn Gestão Soc.* 2016 maio-ago; 10(26):1290-1301.
19. Melo CF, Baião DC, Costa MC. A percepção dos usuários cearenses sobre o Programa Mais Médicos. *Rev Eletrôn Gestão Soc.* 2016 maio-ago; 10(26):1302-1312.
  20. Lima RTS, Fernandes TG, Balieiro AAS, et al. A Atenção Básica no Brasil e o Programa Mais Médicos: uma análise de indicadores de produção. *Ciênc Saúde Colet.* 2016 set; 21(9):2683-2694.
  21. Comes Y, Trindade JS, Pessoa VM, et al. A implementação do Programa Mais Médicos e a integridade nas práticas da Estratégia Saúde da Família. *Ciênc Saúde Colet.* 2016 set; 21(9):2727-2736.
  22. Mota RG, Barros NF. O Programa Mais Médicos no Estado de Mato Grosso, Brasil: uma análise de implementação. *Ciênc Saúde Colet.* 2016 set; 21(9):2879-2888.
  23. Silva BP, Stockmann D, Lúcio DS, et al. Ampliação do acesso à saúde na região mais vulnerável do estado de São Paulo, Brasil: reflexo do Programa Mais Médicos? *Ciênc Saúde Colet.* 2016 set; 21(9):2895-2902.
  24. Silva RJO, Sousa D. O programa mais médicos na perspectiva dos atores sociais responsáveis por sua implantação e dos beneficiários no município de Boqueirão, PB. *REUNIR.* 2015, 5(3):59-75.
  25. Mendonça CS, Diercks MS, Kopittke L. O fortalecimento da Atenção Primária à Saúde nos municípios da Região Metropolitana de Porto Alegre, Brasil, após a inserção no Programa Mais Médicos: uma comparação intermunicipal. *Ciênc Saúde Colet.* 2016 set; 21(9):2867-2874.
  26. Comes Y, Trindade JS, Shimizu HE, et al. Avaliação da satisfação dos usuários e da responsividade dos serviços em municípios inscritos no Programa Mais Médicos. *Ciênc Saúde Colet.* 2016 set; 21(9):2745-2755.
  27. Gonçalves RF, Sousa IMC, Tanaka OU, et al. Programa Mais Médicos para o Brasil no Nordeste: avaliação das Internações por Condições Sensíveis à Atenção Primária à Saúde. *Ciênc Saúde Colet.* 2016 set; 21(9):2811-2820.
  28. Carrer A, Toso BRGO, Guimarães ATB, et al. Efetividade da Estratégia Saúde da Família em unidades com e sem Programa Mais Médicos em município no Oeste do Paraná, Brasil. *Ciênc Saúde Colet.* 2016 set; 21(9):2845-2856.
  29. Silva TRB, Silva JV, Pontes AGV, et al. Percepção de usuários sobre o Programa Mais Médicos no município de Mossoró, Brasil. *Ciênc Saúde Colet.* 2016 set; 21(9):2861-2869.
  30. Silva Junior AG, Andrade HS, Alexandre GC, et al. Oferta de vagas de graduação e residência médicas no estado do Rio de Janeiro a partir do Programa Mais Médicos (2013-2015). *Rev Eletrôn Gestão Soc.* 2016 maio-ago; 10(26):1347-1359.
  31. Alessio MM, Sousa MF. Regulação da formação de especialistas: inter-relações com o Programa Mais Médicos. *Physis.* 2016; 26(2):633-667.
  32. Thumé E, Wachs LS, Soares MU, et al. Reflexões dos médicos sobre o processo pessoal de aprendizagem e os significados da especialização à distância em saúde da família. *Ciênc Saúde Colet.* 2016 set; 21(9):2803-2810.
  33. Terra LSV, Borges FT, Lidola M, et al. Análise da experiência de médicos cubanos numa metrópole brasileira segundo o Método Paideia. *Ciênc Saúde Colet.* 2016 set; 21(9):2821-2832.
  34. Santos BEF, Sena IS, Alves CP. Avaliação discente sobre interação ensino, serviços e comunidade em equipes de saúde integradas ao programa mais médicos em estado da Amazônia. *Tempus.* 2015 dez; 9(4):123-136.
  35. Sena IS, Guerreiro LC, Ribeiro AC, et al. Percepções de estudantes de medicina sobre a experiência de aprendizado na comunidade dentro do programa

- mais médicos: análise de um grupo focal. *Tempus*. 2015 dez; 9(4):81-95.
36. Macedo AS, Alcantara VC, Silva LFS, et al. O papel dos atores na formulação e implementação de políticas públicas: dinâmicas, conflitos e interesses no Programa Mais Médicos. *Cad EBAPE*. 2016 jul; 14(esp):593-618.
  37. Girardi SN, Carvalho CL, Pierantoni CR, et al. Avaliação do escopo de prática de médicos participantes do Programa Mais Médicos e fatores associados. *Ciênc Saúde Colet*. 2016 set; 21(9):2737-2746.
  38. Pinto JP, Amaral D. Corpos em trânsito e trajetórias textuais. *Rev Anpoll*. 2016; 1(40):151-164.
  39. Luz C, Cambraia CN, Gontijo ED. Monitoramento de terminologia na mídia: o Programa Mais Médicos. *Trad Term*. 2015 ago; 25:199-233.
  40. Moraes I, Alkmin D, Lopes J, et al. Jornais Folha de São Paulo e Correio Braziliense: o que dizem sobre o programa Mais Médicos? *Rev Esc Enferm USP*. 2014; 48(esp.2):107-115.
  41. Landim IC. Um estudo sobre a relação entre a democracia digital e a participação política a partir do debate sobre o Programa Mais Médicos no Facebook. *Rev Eletrôn Programa Pós-Grad Mídia Cotidiano*. 2013; 3(3):538-561.
  42. Lotta GS, Galvão M CCP, Favareto AS. Análise do Programa Mais Médicos à luz dos arranjos institucionais: intersectorialidade, relações federativas, participação social e territorialidade. *Ciênc Saúde Colet*. 2016 set; 21(9):2757-2768.
  43. Couto MP, Salgado ED, Pereira AE. Programa Mais Médicos: a formulação de uma nova Política Pública de Saúde no Brasil. *Tempus*. 2015 dez; 9(4):97-113.
  44. Pinto HA, Sales MJT, Oliveira FP, et al. O Programa Mais Médicos e o fortalecimento da Atenção Básica. *Divulg saúde debate*. 2014 out; 51:105-120.
  45. Kamikawa GK, Motta ID. Direito à saúde e estudo da política pública do Programa Mais Médicos. *Rev Jur Cesumar*. 2014; 14(2):341-367.
  46. Garcia B, Rosa L, Tavares R. Projeto Mais Médicos para o Brasil: Apresentação do programa e evidências acerca de seu sucesso. *Inform FIPE*. 2014 mar; 402:26-36.
  47. Cerqueira JP, Alves SMC. A Constitucionalidade do Projeto Mais Médicos para o Brasil. *Cad Ibero-American Direito Sanit*. 2016 abr-jun; 5(2):91-107.
  48. Soares Neto JJ, Machado MH, Alves CB. O Programa Mais Médicos, a infraestrutura das Unidades Básicas de Saúde e o Índice de Desenvolvimento Humano Municipal. *Ciênc Saúde Colet*. 2016 set; 21(9):2707-2716.
  49. Ferla A, Possa LB. Gestão da educação e do trabalho na saúde: enfrentando crises ou enfrentando o problema? *Interface Comun Saúde Educ*. 2013 out-dez; 17(47):927-928.
  50. Feuerwerker LCM. Médicos para o SUS: gestão do trabalho e da educação na saúde no olho do furacão! *Interface Comun Saúde Educ*. 2013 out-dez; 17(47):929-930.
  51. Campos CVA, Malik AM. Satisfação no trabalho e rotatividade dos médicos do Programa de Saúde da Família. *Rev Adm Pública*. 2008 mar-abr; 42(2):347-368.
  52. Chaves SE, Ceccim RB. Avaliação externa no Ensino Superior na área da saúde: inquietações e a dimensão das margens. *Interface Comun Saúde Educ*. 2015 out-dez; 19(55):1233-1242.
  53. Ney MS, Rodrigues PHA. Fatores críticos para a fixação do médico na Estratégia Saúde da Família. *Physis*. 2012, 22(4):1293-1311.

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