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More Doctors Program: reflections on the selection of municipalities for new private schools

Programa Mais Médicos: reflexões sobre a seleção de municípios para novas escolas privadas

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ABSTRACT

Introduction: Attempts to organize professional provision for health precede the creation of the SUS and the challenges are even greater regarding the unequal distribution of doctors in the different Brazilian regions, with particular difficulty in adapting them to Primary Health Care (PHC). Since 2013, the 'More Doctors Program' (PMM, Programa Mais Médicos) has strengthened the discussion about training graduates with a generalist profile, with a strong presence in this level of care. The revision of the National Curriculum Guidelines (DCNs) for medical courses was oriented towards reinforcing action in the local context, strengthening the teaching in Basic Health Units (UBS) and establishing the formalization of agreements with the management of the selected municipalities, aiming to achieve better results.

Objective: To analyze the process of selecting municipalities to implement new private medical courses of Brazil, based on the first PMM public notice.

Method: A qualitative study was carried out with documentary analysis of information from the different stages of the PMM, available in official records and websites, related to the selection of municipalities from 2013 to 2014.

Result: The assessed period involved the publication of the first Normative Ordinance until the final result of the appeals, fifteen months after the start of the contest. Twenty-one municipalities were selected, most of which located in the state of São Paulo.

Conclusion: The PMM proposal is based on the retention of doctors in the countryside and on the power of integration between the local education and health systems. By targeting municipalities in the southeast region, which already had a significant number of courses, the question remains as to whether there will be a real change in the scenario for the provision of doctors in the countryside, especially those assigned to PHC.

Keywords: Primary Health Care; Health Policy; Medical Education.

RESUMO

Introdução: *As tentativas de organização do provisionamento profissional para saúde antecedem a criação do SUS, e os desafios são ainda maiores quanto à distribuição desigual de médicos nas diferentes regiões brasileiras, com especial dificuldade para sua adequação à atenção primária à saúde (APS). O Programa Mais Médicos (PMM) fortaleceu, a partir de 2013, a discussão sobre a formação de egressos com perfil generalista, com forte inserção nesse nível de atenção. Foi orientada a revisão das Diretrizes Curriculares Nacionais (DCN) para cursos de Medicina, de modo a reforçar a atuação no contexto local, fortalecer o ensino nas unidades básicas de saúde (UBS) e estabelecer a formalização de convênios com a gestão dos municípios selecionados, com vistas ao alcance de melhores resultados.*

Objetivo: *Este estudo teve como objetivo analisar o processo de seleção de municípios para a implantação de novos cursos privados de Medicina do Brasil a partir do primeiro edital do PMM.*

Método: *Realizou-se um estudo qualitativo com análise documental de informações das diferentes etapas do PMM, disponíveis em registros e sites oficiais relacionados à seleção de municípios no período de 2013 a 2014.*

Resultado: *O período estudado envolveu a publicação da primeira portaria normativa até o resultado final dos recursos, após 15 meses do início do certame. Foram selecionados 21 municípios com características diversas dos indicadores dispostos, a maioria localizada no estado de São Paulo.*

Conclusão: *A proposta do PMM se alicerça na fixação do médico no interior e na potência da integração entre os sistemas de ensino e saúde locais. Ao contemplar especialmente municípios da Região Sudeste, que já possuía número expressivo de cursos, fica o questionamento quanto à oportunidade de real modificação no cenário de provisionamento de médicos no interior, em especial aqueles lotados na APS.*

Palavras-chave: *Atenção Primária à Saúde; Política de Saúde; Educação Médica.*

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INTRODUCTION

There is a strong mismatch between the growth rate of doctors in the country and the Brazilian population, and in the last twenty years the increase in the number of doctors has been five-fold higher. Even considering this significant numerical increase in several regions, including in areas located far from large urban centers, there is still a tendency to concentrate in central and more developed locations. The disproportion in growth accompanies the unequal distribution, and studies indicate that 30% of the population live in the 4,980 Brazilian municipalities with less than 50,000 inhabitants and only 8% of the doctors develop their activities in these locations. On the other hand, 62% of the doctors in the country work in only 49 municipalities with more than 500,000 inhabitants. The concentration of professionals in certain areas seems to be influenced by the high population concentration, higher *per capita* income and opportunities for specialization, among other characteristics that grant greater profitability to the market [1-3].

The Southeast region has a ratio of 3.39 doctors per 1,000 inhabitants, above the national average of 2.41, being considered the highest in the country. Regions such as the North and Northeast have a very different situation, with a ratio of 1.45 and 1.93, respectively. It is also important to observe the distribution between the capital and the interior of the states, with a more uniform organization in the states of São Paulo and Rio de Janeiro. It seems the supply of doctors could be used as an indicator for analyzing opportunities for users to access services, and those who live in the South and Southeast regions would be at an advantage, reinforcing the importance of monitoring this mapping[1,4].

There are currently 390 Higher Education Institutions (HEIs) with medical courses in the country and only 35% are public, with a higher concentration in five states, respectively São Paulo, Minas Gerais, Rio de Janeiro, Bahia and Paraná. In recent decades, it has been possible to observe a significant expansion of the private sector in higher education, which has involved the entire health area, not exclusively related to medicine. As a consequence, significant changes have been observed in the format, size, and operation of HEIs, such as the different admission mechanisms and the transfer of state funding to students and their families[1,5-7].

Although the expansion in the number of vacancies and enrollments can reconfigure the labor market, it does not necessarily solve problems such as the inequality in the distribution of professionals between regions and the difficulty in settling down in certain spaces. The growing number of medical graduates does not seem to have changed the significant regional contrast, with continued migration to the vicinity of large centers, a situation that the several policies for the provision, retention and quantitative increase of HEIs have not yet corrected[1,3,8].

It is still necessary to evaluate longitudinally whether training in private schools can favor the performance of their graduates in equipment related to supplementary health, making it difficult to align it with the objectives of the National Curriculum Guidelines (DCNs, *Diretrizes Curriculares Nacionais*). It is clear that there is a huge effort to strengthen Primary Health Care (PHC) in most Brazilian schools, regardless of their structure and organization. The challenge of provisioning human resources in PHC is historical and has several movements and regulations to boost coverage at this level of care. Even in regions with a greater number of HEIs that have courses in the health area and offer specialization with residency in family and community medicine, low population coverage still prevailed in the first decade of the 2,000's [5,9,10].

The 'More Doctors Program' (PMM, *Programa Mais Médicos*) was launched in 2013 as an initiative that intended to meet some of the previously reported demands and challenges. The structuring axes of the Program brought different perspectives related to critical-reflective medical training presented in the new DCNs, in addition to objective actions aimed at expanding the number of schools, including the offer of medical residency programs, also considering potential increments in the infrastructure of health units[11]. The disclosure occurred at a time of strong popular demonstrations and caused a deep debate among instances related to medical training, regulation and practice, especially due to the proposal for the participation of foreign doctors in the process. Nevertheless, the notices brought the estimate of the creation of 11,500 new vacancies in undergraduate courses in municipalities in the interior of Brazil, in addition to 12,400 residency vacancies that would be offered by 2017. The central idea of the Program was to seek the retention of medical professionals in areas of difficult access, based not only on structural improvements, but also with the reinforcement of PHC training in the Brazilian Unified Health System (SUS, *Sistema Único de Saúde*) and, mainly, with regulation of expansion by the government[2,12,13].

This proposal of parity between vacancies at different moments of training is based on the expectation that the municipality where the resident physician completed their activities can be the place where they will remain, exercising their professional life. It is clear that the professional's retention depends on other initiatives, such as the existence of a job and salary plan, the availability of work and updating tools, the desired specialty, the presence of a career plan and incentive to update, bringing greater attractiveness for the

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permanence of recent graduates in regions of difficult access and/or greater vulnerability[14-16].

The criteria established for the choice of municipalities with new schools were fundamental for achieving the objectives related to the more equitable provision of physicians in the country. Thus, it seems appropriate to analyze the publications related to the call that occurred between the years 2013 and 2014. Understanding the complexity and relevance of the training axis, the pillar chosen as of interest for this article is the expansion of schools, focusing on the profile of municipalities in the southeast region. The present study aims to analyze the selection process for the implementation of new private courses from the first PMM Public Notice and its contribution to the strengthening of PHC. The idea would be to reflect on the results of the selection stages, the indicators used and the possibility of the Program meeting the demands of the chosen locations.

METHOD

This is a descriptive study, with a qualitative approach, that used documentary analysis of the selection Notices and spatial analysis of the distribution of the municipalities in the southeast region that participated in the processes for the opening of new courses, implemented through the PMM, from 2013 to 2014. The adopted method consisted of using documents as the primary source of information for the research, such as written texts and images. For that purpose, the stages of collection, organization, classification and interpretation of these documents were carried out, with the objective of answering the proposed questions.

As a source of data for the analysis of the documents, the preparation of the maps and the timeline, official data available on the portals of the Secretariat for the Management of Work and Education in Health – SGTES (*Secretaria de Gestão do Trabalho e da Educação na Saúde)* of the Ministry of Health (MoH); the Electronic System of the Ministry of Education of Brazil (e-MEC Registry of Institutions), Secretariat for the Regulation and Supervision of Higher Education (SERES, *Secretaria de Regulação e Supervisão da Educação Superior*); and the National Register of Health Establishments (CNES- *Cadastro Nacional de Estabelecimentos de Saúde* – Datasus) were used [6,17-19].

The most relevant official documents about the Program were considered to be read in full, including Law N. 12,871/2013, the calls for proposals from municipalities for the implementation of medical courses, and the DCNs. After reading, there was a more in-depth study of the information related to the proposed changes and their main objectives[20-22].

The data were systematized, identifying the municipalities involved and describing the approved and canceled registrations, pending issues and structure of public facilities. As indicated in the Notices, the cancellation was considered as non-compliance with the requirements of the contest. The analysis also verified the distribution, location, and participation criteria established for the municipalities, and was carried out based on the proposal and the publication of the results defined in the normative acts that regulated the selection [20,23].

The results presented herein are part of a broader research with the general objective of analyzing the process of construction of the teaching-service-community integration of the new private medical schools, implemented after the first PMM Public Notice, in southeastern Brazil.

RESULTS

By 2022, Brazil had 389 Higher Education Institutions (HEIs) offering medical courses, of which 121 were public and 289 private. The southeast region concentrated almost half, approximately 43.8%, of the medical courses in the country. The state of São Paulo led with 74 schools, 10 public and 63 private, with 21 of these located in the three main cities of the state: the city capital, São Paulo, Campinas and Ribeirão Preto[1].

There is a disproportion between the offer of vacancies and the opening of courses by private schools both in the capital and in the interior of the country. In the first place, regarding the number of vacancies in the interior, the state of Santa Catarina stood out, with 83.9%, followed by Minas Gerais with 66%, São Paulo with 62.2%, Rio de Janeiro with 40.9% and Espírito Santo with 41%. In the southeast region, all states had a higher concentration of private schools in the countryside, although these were located in urban municipalities inside or outside the metropolitan region[1].

Figure 1 below shows the timeline of the process of selection of municipalities by the PMM for authorization regarding the medical course in the southeast region. It is worth mentioning that the publication of the Ordinance that established the pre-selection procedures for the adhesion of municipalities in the north and northeast regions occurred only six months after the end of this Notice, considered as the second wave of the Program. The documentary analysis in the information systems of SERES/MEC, MoH, SGTES (E-MEC Registry, CNES Registry) allowed us to identify the dynamics related to the choice of municipalities and higher education institutions for medical courses in the southeast region[6,17,19].

The first ordinance for calling the municipalities was published in July 2013 with the establishment of criteria for pre-selection and operation of a medical course by a private higher education institution. In this first stage, interested municipalities should meet certain criteria, including having up to 70,000 inhabitants according to the 2012 census

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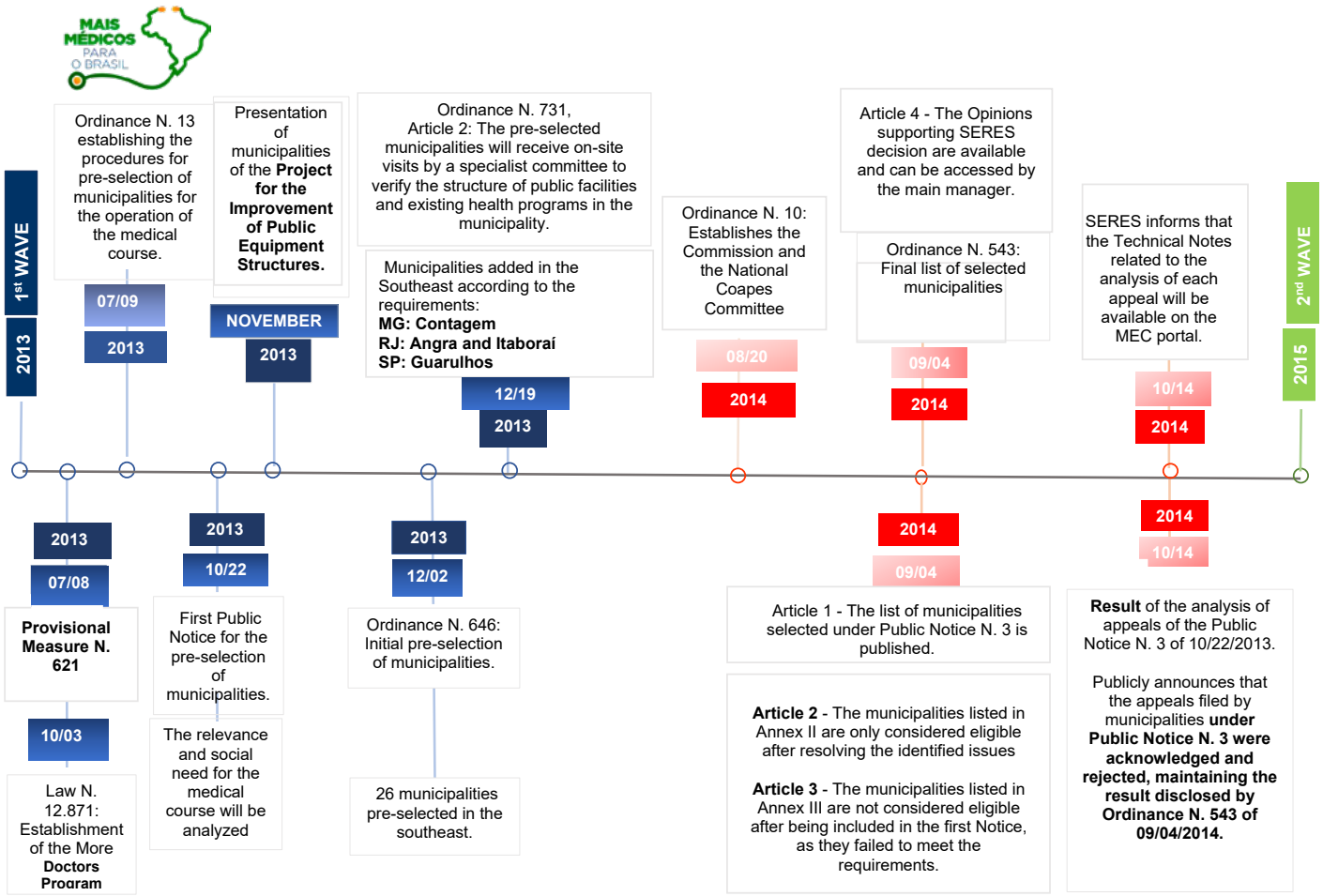
Figure 1. Timeline of the selection process of municipalities by the PMM for authorization regarding the medical course in the southeast region.



Source: The authors (2020).

according to the Brazilian Institute of Geography and Statistics (IBGE, *Instituto Brasileiro de Geografia e Estatística*), not being the capital of the state and not having courses in operation at that time[20].

Considering this proposition, Figure 2 depicts the Map of Qualification of Municipalities in the southeast region for the operation of the Medicine Course, with the final list of the 21 selected municipalities for signing the Term of Adhesion and Commitment, at the end of the first wave of selection.

In addition, SERES highlighted that it could prioritize municipalities that are at least 100 km away from pre-existing medical courses, except for those with more than 500,000 inhabitants. This would be justified in cases where it was necessary to repair discrepancies in relation to those with a lower ratio of physicians per inhabitant and with a minimum structure of health services capable of offering a sufficient and quality field of practice for the students[24].

Bringing a national view of the selection of municipalities in the aforementioned Ordinance, Table 1, shown below, depicts the list of the 39 selected municipalities, around 54% located in the Southeast region. The state of São Paulo was the largest beneficiary, being contemplated with 14 (fourteen) municipalities, followed by 7 (seven) in the state of Bahia.

In the period between November and December 2013, municipalities throughout Brazil were selected for the '*Mais Médicos'* Program, with 22 selected in the southeast region. Also in the same year, the Ministry of Education (MEC, *Ministério da Educação*) announced the addition of four other municipalities in the region in this pre-selection, reaching a total of 26, as detailed in Table 2 per states in the region. According to the ordinance published by SERES (SERES N. 646/2013), the inclusion occurred due to the entry of appeals by municipal managers, within the established deadline. It should be noted that the Opinions on approvals or rejections could only be accessed by the municipal manager responsible for registration in the E-MEC System [20,25,26].

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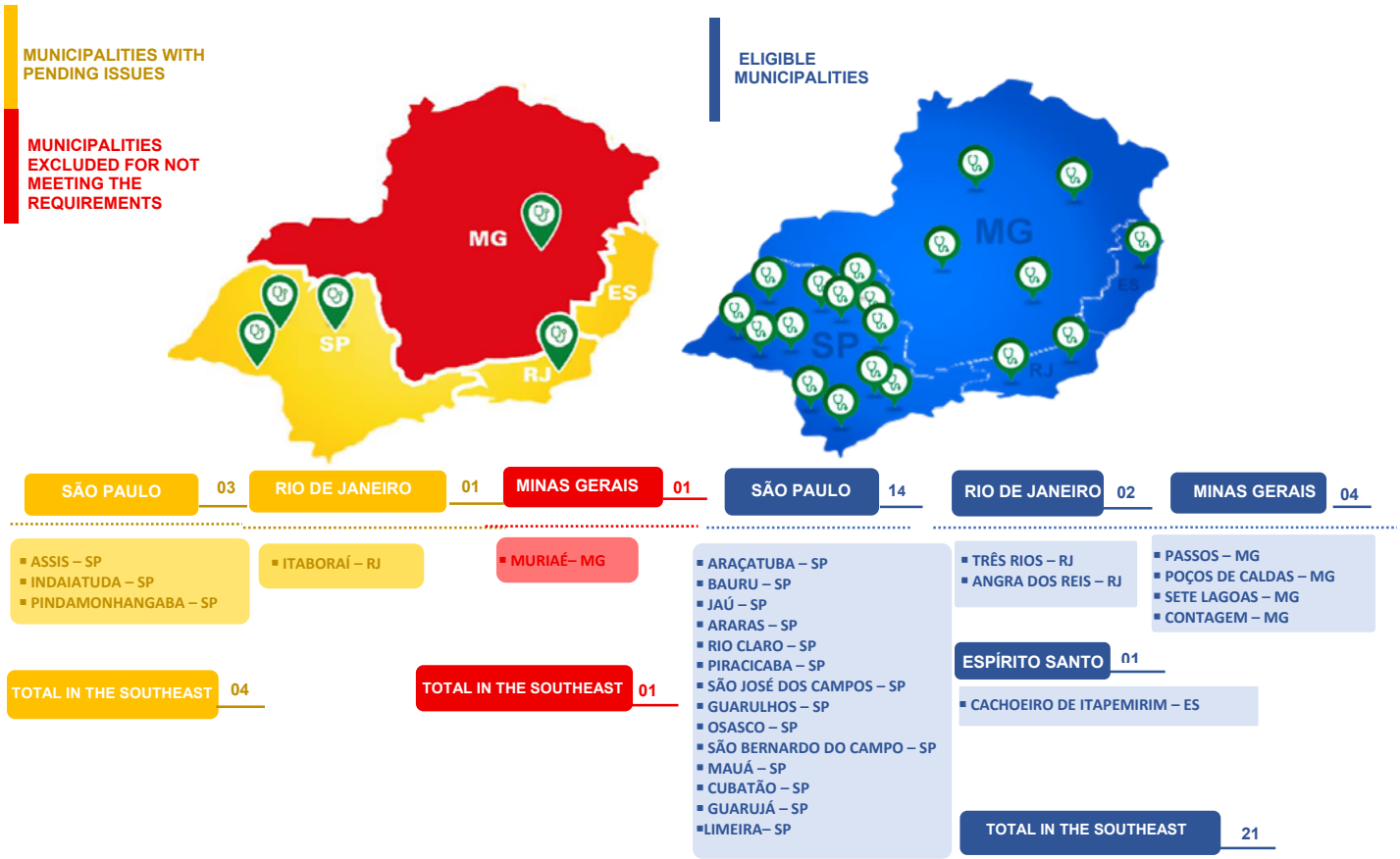
Figure 2. Maps depicting the situations of the municipalities in the southeast region regarding the operation of medical courses by private HEIs throughout the stages of public notice N. 03/2013, according to the result published in Ordinance N. 543/2014.



Source: The authors (2020) based on MEC data - via www.portal.mec.gov.br.

Table 1. Braziian municipalities selected by Federation Unit (FU) in the final stage of Public Notice N. 3 of the PMM, according to Ordinance N. 543/2014

Regions	Selected Municipalities PMM	Estimated Population IBGE 2021	FU	Total number of selected candidates/ State
Northeast	Alagoinhas	153,023	BA	7
	Eunapolis	115,360		
	Guanambi	85,353		
	Itabuna	214,123		
	Jacobina	80,749		
	Jaboatão dos Guararapes	711,330		
	Juazeiro	219,544		
South	Campo Mourão	96,102	PR	4
	Guarapuava	183,755		
	Pato Branco	84,779		
	Umuarama	113,416		
	Erechim	107,368	RS	4
	Ijuí	84,041		
	Novo Hamburgo	247,303		
	São Leopoldo	240,378		
	Jaraguá do Sul	184,579	SC	1

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Table 1. Continuation.

Regions	Selected Municipalities PMM	Estimated Population IBGE 2021	FU	Total number of selected candidates/ State
Southeast	Cachoeiro de Itapemirim	212,172	ES	1
	Count	673,849	MG	4
	Steps	115,970		
	Poços de Caldas	169,838		
	Sete Lagoas	243,950		
	Angra dos Reis	210,171	RJ	2
	Três Rios	82,468		
	Araçatuba	199,210	SP	14
	Araras	136,739		
	Bauru	381,706		
	Cubatão	132,521		
	Guarujá	324,977		
	Guarulhos	1,404,694		
	Jaú	153,463		
	Limeira	310,783		
	Mauá	481,725		
	Osasco	701,428		
	Piracicaba	410,275		
	Rio Claro	209,548		
	São Bernardo do Campo	849,874		
	São José dos Campos	737,310		
North	Tucuruí	116,605	PA	2
	Vilhena	104,517	RO	
	OVERALL TOTAL	39		

Source: The authors (2020) based on MEC data - via www.portal.mec.gov.br.

In the penultimate phase that took place in November of the same year, the local managers of the pre-selected municipalities presented the structure of the public health equipment. Municipalities that did not have a Medical Residency program among the listed specialties should commit to implementing, within one year after the beginning of the course activities, at least three programs in partnership with the HEI that won the public call[20].

Over nine months after the publication of the first list, on-site visits were carried out by MEC evaluators and Opinions were issued with the disclosure of a new list of selected candidates. Some municipalities had pending issues and would only be considered suitable after the irregularities were solved. Chart 2 shows the municipalities that were disqualified after the presentation of appeals and the aforementioned justifications. Only the municipality of Muriaé was excluded due to non-compliance with deadlines in disagreement with the established dates and criteria. Another three municipalities had pending issues related to health equipment and programs related to the coverage of 60% of the population by the Family Health Strategy (ESF, *Estratégia Saúde da Família*), Primary Care and National Program for Improving Access and Quality of Primary Care (PMAQ, *Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica*) score. There was one item among the selection criteria in the second phase, indicating the need to have at least 17 ESF teams, and these three municipalities had fewer teams. Considering the direct influence of the ESF organization on the implementation of the activity proposals presented by the HEIs for the students' practical action field, they were deemed as lacking the adequate support of public equipment [17,25,27].

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Table 2. Municipalities pre-selected in the first stage of Public Notice N. 3 of the PMM, published in Ordinance 646/2013, southeast region.

State	Quantity	Pre-selected Municipalities	Municipalities Added after appeals	Municipalities disqualified after appeals	Unmet indicators	
Espírito Santo	01	Cachoeiro de Itapemirim	There was none			
Minas Gerais	04	**Muriaé** Passos Poços de Caldas Sete Lagoas	Contagem		Muriaé	Exclusion due to subsequent delivery of documents in disagreement with the established dates and criteria
Rio de Janeiro	01	Três Rios	Angra dos Reis **Itaboraí**		Itaboraí	Pending issues identified in public health equipment and programs
São Paulo	16	Araçatuba; Araras; **Assis** Bauru; Cubatão; Guarujá; **Indaiatuba** Jaú; Limeira; Mauá; Osasco; **Pindamonhangaba** Piracicaba; Rio Claro; São Bernardo do Campo; São José dos Campos	Guarulhos		Assis Indaiatuba Pindamonhangaba	Pending issues identified in public health equipment and programs
Subtotal		22	04		05	
Total	26					

Source: The authors (2020) based on MEC data - via www.portal.mec.gov.br.

After analyzing the structure of existing health equipment and programs in the approved municipalities, a statement was published in September 2014 with the number of vacancies offered in the different regions of Brazil, totaling 2,460 vacancies. The objective of the on-site visits was also to ensure the adequate conditions of practice scenarios for the new courses, by maintaining the ratio of five available SUS beds per student, in addition to the adequate ratio of students per PHC team less than or equal to three. In the southeast region, 1,390 vacancies were authorized, representing about 25% of the Brazilian total and with 70.86% of these available in the state of São Paulo [28,29].

DISCUSSION

Based on the documentary analysis in the different information systems available, it was possible to identify the dynamics related to the choice of candidate municipalities to host private medical courses in the southeast region. Considering that there were already 89 courses distributed in the four states that constitute the region, with more than fifty percent (49) located in large urban centers, the expectation would be to choose places where the proposed expansion could contribute to the improvement of local social and health indicators. It is clear that the expansion of courses alone is not enough to solve problems related to the inequality in the distribution of professionals and the difficulty in retaining them, which can create imbalances in supply and demand, even causing changes in salary values[8,30].

From the PMM Public Notice, it was possible to observe that all of the 26 selected municipalities had more than 70,000 inhabitants, in disagreement with the proposed indicator. Figure 2 and Chart 1 show that, considering the population profile, the only medium-sized municipality selected was Três Rios in the state of Rio de Janeiro, and all other municipalities were large ones. The question then remains about the scope of the Program objectives in relation to the reality observed in small municipalities, which have only 8% of doctors working in the country. In addition to the small number of inhabitants, this profile of municipality also experiences important challenges in the organization of its care networks, as well as changes in the demographic and epidemiological profiles of the different Brazilian regions, with a strong dependence

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on services provided close to the capital cities, difficulty in communication, and even transportation of patients who need specialized care[31-34].

It is worth mentioning that in the state of São Paulo, municipalities considered to be economic powers were selected, such as São Bernardo do Campo, São José dos Campos, Guarulhos and Osasco, which certainly have not only a qualified network, but also benefited from the presence of courses in their respective macro-regions. There was also disagreement regarding the criteria beyond the number of inhabitants, due to its proximity to the capital (some being only about twenty kilometers away) and a high Human Development Index (HDI)[24,32,34].

Despite the implementation of the 'Mais Médicos' Program (PMM), which contributed to the expansion of medical courses, there is still an inadequate distribution of doctors and educational institutions throughout the national territory. Although the Southeast has the highest proportion of physicians per 1,000 inhabitants (2.81) among the regions of the country, the challenge persists, especially with the growing expansion of private schools in the interior, driven by government policies aimed at providing and retaining medical professionals in remote areas[1].

Regarding the total number of vacancies available for the southeast, the distribution still remains unequal. Espírito Santo had an estimated coverage of 84.2% of the population by Family Health Teams in 2020, with more than half of its equipment concentrated in the greater Vitória region, the capital city[27,35].

Minas Gerais is the second most populous state in the country, with a high percentage of inhabitants in rural regions, distributed among 854 municipalities, more than half of which are considered small. The expansion seemed appropriate in these states, which had only one and four municipalities contemplated, respectively. The management of the health network in small and rural locations constitute a great challenge, which needs to contemplate disparities related to the HDI, unequal organization of services and the wide dependence on integration with regional equipment. Considering the timid expansion in these states, the referral for solution or at least minimization of these irregularities seems to have been postponed[31,36].

The increase in vacancies and, consequently, in the number of graduates, can also affect the distribution of health professionals, and a comprehensive approach to the situation is adequate, considering not only the training, but also regional singularities[37].

It is quite possible that even medium-sized and large municipalities that have already consolidated courses of renowned quality, face chronic difficulties in welcoming the vulnerable population in their peripheries and need constant review in the organization of the provision of services. A critical analysis of the relationship between the university, the government and the market, especially in the Brazilian context, is important to understand the role of regulation and guidance in higher education. The need to adapt the university to the market interests, the influence of educational policies on economic development strategies, the commercialization of education and the certification and international recognition of diplomas constitute aspects that deserve attention in the analysis of this relationship. Reflection on the scope of regulatory actions to ensure quality standards in the care provided to the population remains open[38].

The analysis of the official SERES documents showed that only five pending issues were not solved during the process. The structure of the municipal care networks was the main impediment, since they did not have the necessary characteristics to host medical courses and are probably also inadequate to meet the demands of the local population. The exclusion of Muriaé also occurred due to non-compliance with the required conditions, with delivery of documents in a period later than that established in the Notice, expressing the need for better local organization. It is possible to imagine that the municipal manager - considered the main articulator of the stages of the contest - of smaller municipalities does not always have adequate administrative support and human resources to comply with the established requirements. The principles of equity for participation in the contest are subject to discussion, being a reflection of the de-structuring in these locations where there are greater difficulties regarding the operation of care activities, which would greatly benefit from the reinforcement of the infrastructure proposal[39,40].

The timeline shown in Figure 1 illustrates that in the first six months after the announcement of the Program, there were several publications, from the initial Ordinances to the final list of those selected. Unlike longer periods generally applied to Public Notices of this magnitude and scope, a certain speediness is observed between the stages, probably due to the need to respond to the lack of doctors perceived by the population. At the time, it was possible to identify a broad popular manifestation and wide media coverage, related to the difficulty in having access to health services, both in primary care and for specialties. The PMM had in its bases aspects related to the expansion and valorization of the ESF, including improvements in infrastructure and training, which could facilitate the hiring of physicians at this level of care, considered a chronic challenge for health management[41,42].

Issues related to medical demography and professional provisioning are already known and highlight these contrasts,

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requiring extensive investment both in the health network and in the qualification of those who provide care in more remote regions. This integration between the education and health systems is crucial, especially from the perspective of continuing education, always in agreement with the demands and local context[31]. The PMM provides for the signing of an Organizational Contract for Teaching-Health Public Action (COAPES, *Contrato Organizativo da Ação Pública Ensino-Saúde*) between the managers of these two fields of action, with representation from the municipal and state health departments and the HEIs involved. The central idea would be to promote an approach that allows a certain guarantee so that the appropriate conditions of the field of practice for quality medical training are made available. In addition to the possible partnership in the shared development of projects for the continuous qualification of human resources, which would already be enhanced by the new residency programs[3,12,43,44].

The provision of contractual clauses for the establishment of these collaborations is not enough to remedy the obstacles in the articulation between municipalities and HEIs. The admission of teachers and students in areas of difficult access, health units with inadequate spaces, shared supervision with preceptors from the team itself are problems that cannot be solved only with documents. It is quite possible that even medium and large municipalities that have already consolidated courses of renowned quality, face chronic difficulties to embrace the vulnerable population in their peripheries and need constant review in the organization of the provision of services[45,46].

The phenomenon of medical education expansion in Brazil was driven by public policies a few decades ago, but it has not been able to reduce regional disparities in the supply of vacancies, with a notable growth in private HEIs. It is clear that the increase in courses may suggest advances in access to information and qualification of care, but it is not necessarily capable of meeting the demand for professionals in the chosen municipalities. The opening of new medical courses is of general interest in a country where access to health care is still limited and new policy approaches and regulatory proposals will be needed to retain professionals in underserved areas and improve the provided care and services[37].

From 2013 onwards, there was a change in the dynamics for the opening of new medical courses, which began to be regulated by federal law, which does not happen with any other undergraduate course. The idea of public calls based on contest Notices was received with some uneasiness and certainly changed the current scenario. The regulation brought directions and greater transparency to the processes, but it was not able to curb the opening through lawsuits filed by private HEIs that already had an interest in expanding their vacancy numbers.

FINAL CONSIDERATIONS

The proposals for changes and recent directions in medical education were based on meeting the health needs of the population treated by SUS, considering the importance of PHC as the gateway to the network. The review of the DCNs launched in 2014 further favored PHC as a training axis, with graduates capable of dialoguing with the contexts and demands of the assisted clientele at the different levels of care[9].

In order for education and health policies to act in an integrated manner as instruments capable of promoting the desired transformations, at a certain point it was observed that there was a need for investment and regulation for the opening of new medical schools. The purpose would be to privilege spaces lacking training, valuing actions to retain the graduates in these places and promoting improvements in the available equipment. The provision of physicians in the interior of the country remains a major challenge and the PMM seemed to have in its pillars characteristics capable of changing this situation, especially with the offer of medical residency programs with a number of vacancies similar to those of graduates of the new courses.

The Program introduced significant changes in the way medical courses are established, placing the government as the main authority in the selection of new courses, raising questions about the role of regulation, financing and expansion of vacancies. The gradual privatization of medical education, observed even before the PMM, is also an important aspect to be considered in this context.

The installation of COAPES and the concomitant organization of residency programs in the major areas of medical practice brought even more synergism to the municipalities in the interior that suffer from the challenge of hiring doctors. Even medium-sized and large municipalities face difficulties in meeting the demands of the most vulnerable segments in their peripheries, highlighting the importance of integration between the education and the health systems. Considering the counterparts available, the foreseeing of greater integration between educational institutions and the health network, in addition to the new guidelines that guide training, it would be possible to expect significant advances in the contemplated places. The qualification of health services, which can be significantly modified with the presence of students, teachers and preceptors, would also need to be evaluated longitudinally.

In this context of changes and reflections, the Public Notice in question initially and especially contemplated the southeast region of the country, which already had many courses established in large urban centers. With the new proposal, it would be possible to direct the opening of schools in spaces hitherto considered of less interest, remodeling the

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profile of vacancies. This is not about simplifying complex problems of access and availability of health resources, limiting their solution to the presence of medical schools in the interior. And the results of the first wave of the Program do not seem to have contributed to the achievement of the idealized purposes.

The influences of market forces on the training process of health professionals may have been ignored or minimized, and the formulation of policies and regulatory mechanisms end up being insufficient. The educational sector has been rapidly transforming with the growth of large private groups, which can bring unfavorable conditions regarding the availability of resources and greater representativeness of oligopolies. The expansion of private medical courses in Brazil has been driven by different types of financing, including government funding, with a pressing need for monitoring the quality and infrastructure necessary for the adequate training of professionals. The relationship between universities, the goverment and the market influences not only the training of health professionals, but also actions aimed at education and local development. [47]

The increase in the provision of doctors in Brazil, although significant, does not seem to be able to solve the inequalities related to the geographical distribution. On the contrary, the increase that occurred mainly within the context of private HEIs may aggravate the disparities in concentration, which means that some regions may have even fewer doctors when compared to the national average. Future studies, with systematized and timeline analyses, will be necessary to observe the impact of this expansion in the richest region of the country, with emphasis on indicators focused on the quality of care provided to the most vulnerable groups.

The opening of new medical courses is of public interest, in line with the constitutional right to health for all citizens. However, it is crucial that the expansion be carefully planned and implemented, taking into account the specific needs of each region and ensuring the quality of the training and health services offered. Collaboration between all actors involved in the process is essential to address the challenges and achieve an equitable distribution of health professionals across the country.

Thus, it seems appropriate that this periodic monitoring be provided for in the Public Notice itself (including *in loco*) over the next few years, especially regarding the possibility of retaining and the permanence of graduates in smaller municipalities in the interior.

AUTHOR CONTRIBUTIONS

Anna Tereza Miranda Soares de Moura contributed to the organization of the theoretical framework, data analysis and reflections for discussion with final review of the manuscript. Maria Tereza Fonseca da Costa contributed to the review of the manuscript with the indication of changes in the structure and content of the discussion. Neila Cabral de Souza Cavalcante contributed to the literature search, analysis and organization of references with structuring and development of the theoretical framework that comprises the various sections of this manuscript.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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