interface
comunicação, saúde, educação
https://www.interface.org.br
eISSN 1807-5762

Debates

The More Doctors Program and the changing role of the State in the regulation and organization of medical education

Hêider Aurélio Pinto[a]
<heider.aurelio@ufrb.edu.br>

Rosemarie Andreazza[b]
<andreazza@unifesp.br>

Renato Janine Ribeiro[c]
<rjanine@usp.br>

Maria Rosa Loula[d]
<mariarosaloula@gmail.com>

Ademar Arthur Chioro dos Reis[e]
<arthur.chioro@unifesp.br>

[a] Centro de Ciências da Saúde, Universidade Federal do Recôncavo da Bahia. Avenida Carlos Amaral, 1015, Cajueiro. Santo Antônio de Jesus, BA, Brasil. 44574-490.
[b] Departamento de Medicina Preventiva, Escola Paulista de Medicina, Universidade Federal de São Paulo (Unifesp). São Paulo, SP, Brasil.
[c] Departamento de Filosofia, Universidade de São Paulo. São Paulo, SP, Brasil.
[d] Instituto Brasiliense de Direito Público. Brasília, DF, Brasil.
[e] Departamento de Medicina Preventiva, Escola Paulista de Medicina, Unifesp. São Paulo, SP, Brasil.

The More Doctors Program has been considered, in recent studies, the most important normative change of the State's attributions in the organization of the education of human resources for the Brazilian National Health System (SUS). This article analyzes the most structuring axis of the program, education in health, by revising literature, and analyzing documents and databases in order to describe its model as a public policy and discuss which normative changes had an effect on the State's action. The article identifies institutional changes in the Brazilian Ministry of Health and Ministry of Education, in the reorientation of medical education, in the expansion and redistribution of undergraduate and residency seats, and in the creation of public policy instruments to plan, regulate and assess the education of specialists. The paper is concluded by identifying interruptions in the program's structuring actions and objectives, and goals and objectives that will probably not be met within the established deadlines.

Keywords: Primary healthcare. Human resources in health. Health education. More Doctors Program.

Pinto HA, Andreazza R, Ribeiro RJ, Loula MR, Reis AAC. The More Doctors Program and the changing role of the State in the regulation and organization of medical education. Interface (Botucatu). 2019; 23(Supl. 1): e170960 https://doi.org/10.1590/Interface.170960

Introduction

The More Doctors Program (PMM)[1] was instituted by law (approved soon after the 2013 rallies, although its project was prior to them[2,3]). The creation of PMM takes into consideration the critical analysis of the advances, limitations and challenges of prior government initiatives in the supply of professionals and in health education, since important actions had already been previously implemented[2-8].

PMM made a series of changes in medical education, shifting its logic from market-oriented to policy-oriented[9]. This guidance is expressed in the priority to ensure the education of doctors in regions that had been under-considered so far, such as the North, Northeast and Central-West. These regions were under-considered in the supply to smaller cities and in the supply of specialties, such as Family and Community Medicine (FCM). These specialties were left in the background or considered critical points in health education by other authors[4,7,8,10].

PMM's most visible and controversial issue was related to the emergency supply of doctors to assist populations in the outskirts of large cities and in the country's most distant and vulnerable regions. However, the analysis of the program shows that the most structuring axis is the one related to changes in education and medical education. It aims at meeting the needs of the Brazilian society and Brazilian National Health System (SUS).

It is SUS' responsibility to "organize the education of human resources in the health sector." This role is established in Article 200 of the 1988 Federal Constitution and is reinforced by the Organic Health Law. However, this perspective, supported by the Brazilian Health Movement and in line with the one adopted in other countries[11], was not followed by normative regulation and public policy instruments that could enable its effective implementation by SUS. Several authors point out that this constitutional principle was not operationalized and that education has been preparing professionals to work in health without taking the sector's needs into consideration[4,10-14]. According to the Report of the 11th National Health Conference (2011), this disjunction resulted in the following framework[15]:

> [...] the education of health workers is not oriented towards understanding social health needs. It is conducted without a debate with SUS' management and social participation bodies, resulting in autonomy by MEC, universities and societies of specialists in decisions related to the number, and political and technical characteristics of future health professionals[8]. (p. 42-3)

According to different authors[6,7,9-12] and to an important report of the World Health Organization on the topic[16], the State's action in health education and in the regulation of the distribution of human resources is a nodal point to the implementation of national health systems. In the case of Brazil, this framework is aggravated by the state regulation's weakness[4,7,11,15].

The inadequate education of doctors according to the needs of the population and of SUS can be evidenced by the insufficient amount of undergraduate medical course seats per inhabitant. In 2013, the national average was of 0.8 admissions per 10,000 population. This number was a lot lower than the one observed in Argentina (3.2)

and in the average of the 31 member countries of the Organisation for Economic Co-operation and Development (OCDE) (1.1)[3,17,18].

Undergraduate courses do not adequately prepare graduate medical students to work in primary care[4,5,10,13,14]. In 2013, the country had only 3,300 FCM specialist doctors[17], less than 1% of the total number of doctors. In the month prior to the creation of PMM, only 5% of the family health teams had FCM specialists[19]. This mismatch between SUS needs and the education of professionals (in number, profile and territorial distribution of education and workforce offer) is not exclusive to primary care. It can be observed throughout the system[4,7,8,10-12,15,19].

Medical residency has a central role in the education of specialist doctors in preparing their frameworks in their own workplaces[4,7,13]. The National Medical Residency Committee (CNRM) is an important space for the operationalization of this regulation[4,7,20]. However, its direction has been historically determined by the medical corporation's interests. Additionally, there is a tacit agreement between the State and medical entities regarding the conciliation of interests to maintain titles granted by medical societies valid[4,7].

PMM was created to intervene in this complex framework. Recent works show this is the most important change in the State's operation around the topic related to the organization of the education of human resources since the creation of SUS[7,18,21,22].

This article is aimed at understanding PMM's model as a public policy and at evidencing instituted actions based on the new normative statute and the changes produced in the State's attributions in the organization of human resources. The study's main premise is that PMM's most structuring axis is represented by the joint action of the Brazilian Ministry of Health (MS) and Ministry of Education (MEC). This action aims at changing the education of new doctors, both by creating new residency programs and public and private courses and by changing medical education.

Methodology

This qualitative study involved a documentation analysis[23] of PMM's legislation and rules and a literature review on the topic. The descriptors *recursos humanos em saúde* (human resources in health) and *educação médica* (medical education) were used in the LILACS and SciELO databases, and *Programa Mais Médicos* (More Doctors Program) in the Google Scholar database.

Information collected from official databases, reports and articles enabled to identify normative changes that influenced the State's action to face the social issues in question. In order to do so, government decrees and directives, documents, institutional publications, reports, MS and MEC's monitoring system, ECAR, websites, dissertations, books and scientific articles related to the topic were analyzed.

This article also contains reflections resulting from the privileged role played by the authors in PMM implementation, both in MEC and MS. The authors are subjects who explain and decline, *a priori*, a supposed scientific neutrality, undertaking the engaged characteristic of its threefold implication: as government agents, Collective Health and Public Education workers, and researchers intended to produce a militant knowledge committed with SUS[24].

Therefore, the public policy is considered here an object that produces knowledge. PMM is still an open work, indicating some paths and possibilities in medical education and its relationship with SUS. This is why the political analysis' conceptual milestones were considered as reference here[25].

Results and discussion

The State's initiative that is most related to SUS' effort to organize education was the creation of the Management Department for Work and Education in Health (SGTES), in MS, in 2003. Based on it, a national policy to reorient professional health education was articulated. This policy contained actions aimed at inciting changes in undergraduate courses, education of teachers, teaching-service integration, expansion of priority residencies to SUS, etc[21].

However, MEC's regulatory actions related to institutional assessment, and criteria and processes to authorize new seats, medical schools and residency programs were not guided towards SUS needs and priorities. In order to focus on this framework and act with MEC in a cross-sectional way, Interministerial Directive no. 2118 was published in 2005. Its objective was to promote technical cooperation in the education and development of human resources in health. In 2007, the Interministerial Commission of Health Education Management was instituted with an advisory role. The change in CNRM's composition, by including SUS' tripartite representation, only occurred in 2011. At the time, it was established that the regulation of institutions and medical residency programs should consider the need for specialist doctors according to the population's socioepidemiological profile.

Although they are essential measures for the cross-sectional operation of health and education, their results were distant from the determined objectives. According to several authors[7,11,21], they did not manage to effectively advance in the organization of the education of human resources. There was a hiatus between the constitutional responsibility attributed to SUS and its actual state capacity to organize education in Brazil.

In 2013, with the expansion of primary care and of services fostered by resources allocated by MS in healthcare networks, the situation got even more problematic regarding education, distribution, practice and retainment of doctors. There was an insufficient amount and distribution of undergraduate medical seats[2,3,18,22] and residency seats (Chart 1).

Chart 1. Distribution of undergraduate medical seats per 10,000 population in 2012 per region and concentration per capital.

Region	Seats per 1,000 population
Southeast	1.08
South	0.93
North	0.85
Central-West	0.70
Northeast	0.70
Approximately 50% of the seats were in 27 state capitals and the others, in other 97 cities.	
From 2003 to 2013, when the program was created, the total number of doctors graduated in Brazil was equivalent to only 73% of the number of new job opportunities created by the job market (a deficit of 27%)[2,3].	

Created by the authors.

In 2011, the Federal Government started adopting measures to face the shortage of doctors in vulnerable areas. A couple of these measures were: FIES (Student Loan Fund) law regulation, with specific incentives to primary care-dedicated doctors in vulnerable places; and creation of the Qualification Program for Primary Care Professionals (PROVAB). Both of these measures were in partnership with MS and MEC[2,3,6,7]. Policies that aim at attracting professionals to primary care in needed areas date back to the 1970s. In 1976, the Program of Interiorization of Health Actions and Sanitation was created, followed by other government initiatives, such as the Program of Interiorization of SUS (1993) and the Program of Interiorization of Health Work (2001)[6,7,22]. Although PROVAB has had important effects already analyzed by literature[6] and has gone from 350 doctors in practice in 2011 to 3,550 in 2013[22], it was still not able to meet the cities' demands. In that year, there was a planned deficit of 13,000 doctors[3]. In PROVAB, antecedents to PMM's emergency supply axis were identified[2,3,7,18]. PMM had more than 18,000 professionals in 2015. At that time, besides expanding its own effects, it incorporated PROVAB doctors[3].

However, measures of supply and specialization in service were not sufficient to advance towards the organization of education. This was due to the fact that they did not interfere in planning the health workforce in the medium and long term. Progressively, the lack of doctors started being pointed out by city health managers and opinion polls as one of the country's most relevant health issues. The mayors' pressure resulted, on January 2013, in the creation of the movement "Where's the doctor?" led by the National Federation of Mayors with the support of the National Council of City Health Departments[2,3,26].

PMM emerged in this context of intense public debate, stirring up the support of mayors and SUS managers, and the immediate resistance of medical corporation organizations[2,3,26,27]. During the three months between the provisional presidential decree's edition and its conversion into law[1], PMM gained the support of the population[2,3,27] and the Brazilian Congress' representatives. This support helped towards the law's approval, after important improvements, by a large majority of votes[2].

The axis with the greatest visibility was the emergency supply. However, PMM indicates a broader scope in its objectives, among which the following are highlighted: "III – Improve medical education in the country [...]" and "IV – Expand the insertion

of learning doctors in SUS' care units, developing their knowledge on the Brazilian population's health reality [...]"[1].

The changes made in PMM Law's text resulted in a significant growth of the medical education axis. This axis took over most of the legislative text and provided a legal framework that prepares the State to organize human resources to SUS. It went from a targeted and emergency focus to a dialog with broader formulations that were being debated in the country and in the world. These debates involved planning, regulation, supply and education of human resources to health systems[7,10,11,15,16,21].

From the point of view of the state capacity, the policy also produced an innovative joint operation of the ministries in the attribution of shared and complementary responsibilities in the creation of common governance spaces of PMM and in the design of processes that demanded an articulated practice. This articulated practice was required, for example, in the authorization to open new schools. In order to do so, MEC strongly depended on the identification of places that mostly needed new schools, and this was MS' responsibility[1,3].

To fulfill this new role, MS and MEC made institutional adaptations. In 2013, MS created the Planning and Regulation Division for the Supply of Health Professionals under SGTES' scope. In MEC, the Directorate of Health Education Development was created in connection with the Higher Education Department. New attributions were given to the Directorate of Higher Education Regulation. Additionally, the General Coordination Office of Public Call Processes was created in connection with the Department for the Regulation and Supervision of Higher Education.

The new National Curricular Guidelines of undergraduate medical courses approved after the approval of PMM Law by Resolution 3/2014 of the National Education Council involved greater participation of MS and the National Health Council. Both entities helped create the guidelines and indicated a greater integration between the health and education systems, and clearer and more objective rules to reorient the course according to SUS and the population's health needs. They also set deadlines and instruments to implement changes.

The National Curricular Guidelines updated medical education according to contemporary curricular reforms in health that had been occurred throughout the world[28]. These updates included emphasis on active pedagogies and integration with health services. They reoriented the fields of practice in order to prepare professionals with competencies required by SUS[4,10,12-14]. They also identified management and education, as well as healthcare, competencies that had already been developed in the National Policy for Permanent Education of SUS. They also reinforced multiprofessional team practice and the importance of students dealing with real problems and undertaking responsibilities according to their level of autonomy. The greatest demand, teaching-service integration, gained explicit rules: 30% of residency should be in primary care and urgency services. The competency profile became broader, focused on primary care and coordinated by FCM knowledge area.

The legislation established that medical courses of both public and private institutions should implement the new guidelines until 2018. This implementation process would be verified through audits and assessment processes by the National Higher Education Assessment System (SINAES)[1]. Additionally, a specific assessment to medical courses was created with instruments and methods that assess knowledge,

skills and attitudes. This assessment aims at measuring the current status of each student regarding the new profile expected from the new National Curricular Guidelines and following the development and acquisition of competencies. In 2016, in a process led by a commission comprised of MEC, MS, CNS, the Brazilian Association of Medical Education (ABEM), the National Executive Directorship of Medical Students (DENEM) and the Federal Council of Medicine (CFM), the creation of this new assessment instrument by SINAES was concluded through Directive 386, of May 2016, with 15 new indicators to assess compliance with the National Curricular Guidelines' rules. The National Serial Assessment of Medical Students (ANASEM), that tests progress, was also implemented. This test was provided for in PMM Law and should be regularly applied to all medical students in the second, fourth and sixth years.

The rules drafted an assessment system capable of guiding medical education. Besides determining MEC's regulatory measures (that can, as a last resource, result in the interruption of the university entrance exam and in closure of the course), this system could also be used as a modality of access to residency, as we will see later on. The objective was to build a model that is similar to "ENEM-SISU"[3] for the transition from undergraduate course to residency.

PMM also provided for measures to improve integration among higher education institutions, health services and health management. Among these measures, the following are highlighted: creation of an instrument of agreement and establishment of commitments and responsibilities among these agents, called Education-Health Public Action Organizational Contract (COAPES); and creation of plans and processes to qualify preceptors (professionals connected to health services, not higher education institutions) to work as teachers in the education process.

In order to comply with PMM's objectives in the long term, MEC planned the expansion of undergraduate medical seats. It established a goal to go from 1.8 to 2.7 doctors per 1,000 population until 2026. This goal considered the United Kingdom's baseline in 2013[3]. In order to do so, it would be necessary to create 11,500 undergraduate seats in 5 years. The creation of these seats would increase the proportion of admission seats in undergraduate medical courses from 0.8 to 1.34 per 10,000 population. It would also aim at promoting the interiorization and territorial distribution of seats taking into consideration SUS regionalization and democratization of access to medical courses[3].

A significant change was implemented in the logic behind the creation of undergraduate seats. Until then, the formal initiative had always been of a private or public higher education institution, and MEC was responsible for its authorization. In order to open new seats in Medicine, Dentistry and Psychology, a specific assessment conducted by CNS was required to identify the social need for the course, as determined by Decree no. 5773, of May 2006.

With PMM, the planning and regulation initiative was transferred to the State based on new rules. In order to meet the seat expansion goal, firstly, the public universities' expansion potential was identified. The difference between public expansion and the general goal determined the size of the expansion to be conducted through private institutions. The normative analysis clearly shows that a regulation model was created for opening private seats. Firstly, MS identified the states, regions

and cities that needed medical courses. Previously determined objective criteria was followed: city's size, health network's conditions to receive medical courses (from primary care coverage to SUS' hospital beds), non-existence of medical schools nearby or in the health region, etc. This step was part of the notice coordinated by MEC and conducted by the cities that showed interest and voluntarily signed up to receive a private medical course. MEC was responsible for assessing these cities, including *in loco*, verifying their compliance with the established requirements. After announcing the selected cities, a second notice was published by MEC. It was a public call in which private higher education institution supporting entities competed against each other for the right to open a medical course in each city selected in the previous step. They were assessed through a set of criteria, among which: MEC assessment score, Political-Pedagogical Project, infrastructure planning, financial stability, teaching-service integration proposal and adherence to the University for All Program (ProUni) and to FIES. This last criterion was aimed at democratizing access to the course. Additionally, the supporting entities were committed to ensuring a certain proportion of scholarships to low-income students.

The essential element to be taken into consideration in the change promoted by PMM provided the State with instruments that characterized medical education and opening of schools as policy-oriented, rather than market-oriented[9]. This model strengthens the State's regulation of private education, articulating it according to the education's organization. The State undertook the initiative and started managing the places that would receive the courses according to the public criteria and needs based on public interest. Concrete measures to ensure quality were also taken in the assessment of cities and higher education institutions. The common private practice was inverted in different sectors: instead of higher education institutions requiring benefits to choose where the course would be implemented, they had to commit themselves and submit their best counterpart proposal to SUS' benefit. Additionally, it was indicated that, in the course implementation, the National Curricular Guidelines had to be met and the instruments provided by law, such as COAPES, should be implemented.

Authorization requests previously filed in MEC, before PMM Law's enactment, followed the old model. Until 2016, post-PMM Law private expansions occurred as planned, based on two notices, published in 2014 and 2015. The first notice was exclusively focused on the North, Northeast and Central-West regions, and aimed at promoting the interiorization of courses in these regions, which were only partially covered in the first notice.

MS and MEC's integrated and complementary act, and public calls evidence the implementation of these rules. According to MEC's data and reports, until 2016, approximately 6,600 seats (almost 60% of what was planned) were created in public and private institutions. Besides promoting the interiorization of courses, the greater equity in the distribution of seats enabled the offer of seats in the North and Northeast regions to surpass 1 seat per 10,000 population, becoming closer to the one observed in the South and Southeast regions, facing a historical inequality.

However, this expansion still faces strong resistance from the medical corporation. Although there are differences between criteria used among official studies that provide the grounds for MS and MEC's projections and planning, and the series of

studies called *Demografia médica*[17] (Medical demographics), of the Federal Council of Medicine (CFM), the greatest disagreement between these social agents is to determine the number of doctors needed in the country. PMM established a goal, as mentioned above, that was considered demanding by medical entities. However, after measures implemented by PMM, the proportion of professionals achieved only 2.2 doctors per 1,000 population and 1.02 medical seat per 1,000 population[17]. This framework positions Brazil in the lower quartile of OECD's 34 countries[17], being far from PMM's goal.

With the expansion of seats that has already been promoted, Brazil will achieve the planned goal of seats, even though not in all health regions. The country may be able to achieve 3 doctors per 1,000 population until the end of the decade. It is worth highlighting that 23 of OECD's 34 countries have already achieved this number, and several of them are increasingly expanding their seats[17]. Additionally, the Brazilian health system has characteristics that require a larger number of doctors than European countries with universal systems.

Regarding the regulation related to the education of specialist doctors, Aléssio and De Sousa[7] noticed that PMM resulted in brand-new and structuring contributions that showed the State's decision to undertake the responsibility to create instruments to plan and regulate this workforce. Medical residency in Brazil shows contradictions in the public-private relationship and in SUS' regulations. Almost 100% funded by the public sector, medical residency mostly occurs in public services or those that provide services to SUS. Prior to PMM's creation, the State had almost no participation in planning and regulating which specialty seats should be created and where. This insufficient participation of the State is rather different from countries that also value and invest in this type of education, but that do not give up on its regulation, such as Canada, Spain and Portugal. These countries base the composition of specialists on the health system[3,4,7,11].

Traditionally, requests to accredit new seats or medical residency programs depended on the initiative and availability of some specialist doctors, on the tradition of a given health or education institution, and on the interest and availability of funds of a federation unit. On the other hand, in some cases, even with available need and capacity, corporation organizations restrict the expansion of seats in some specialties considering the market interests[4,7].

The State's deregulation results in the creation of programs unrelated to social and health needs or in repression of the creation of new courses due to varied interests. It also gives room to "regulatory" actions guided by private agents and interests that, most of the times, act against the public initiative and the collectivity's interest.

Aléssio and De Souza[7] identified in the education of specialists in the country: clear inequality with large concentration of programs and seats in the Southeast and South regions; lack of offer of different essential specialties in the North, Northeast and Central-West regions; national deficits in specialties as Geriatrics, Endocrinology, Otolaryngology, Neurology, Psychiatry and Anesthesiology; and low offer of FCM seats.

Databases of specialists have always been fragmented and spread out. CNRM held out information of doctors who concluded residency. Professional specialty associations kept records of the members who held titles and were in good standing.

The Regional Councils of Medicine, on the other hand, only had information of doctors who decided to list their title in the council and, therefore, were allowed to advertise themselves as specialists. The information systems of MS and of the National Regulatory Agency for Private Health Insurance and Plans (ANS) contain records with specific rules requiring health managers, providers and insurance companies to inform doctors and their specialties. This disruption of information related to specialists can be exemplified by the variation of 3,000 to 18,000 existing eye doctors in the country, depending on the source being considered.

PMM Law[1] created the National Registration of Specialists to unify the available information about doctors and identify the need for specialists. It enabled to know the amount and regional distribution of doctors and thus plan the expansion of health education seats and health services. It required that all databases be provided to MS. Under protest of medical entities that were against the state regulation of the education of specialists and thus the registration itself, the publication of Decree 8516/2015 ensured the operationalization and publication of the registration on MS' website. Based on it, criteria for the need for specialists per region started being created in order to induce, finance and authorize seats and programs to each health region.

Other measures of great impact in the organization of human resources determined by PMM Law were the universalization of medical residency seats and the redesign of the itinerary of education of specialists so that FCM would become the base education in the country. The law provides for the establishment of residency until 2018. It also requires that, before being admitted in any program (except for nine specialties), doctors should take one or two years of FCM residency. This residency has to be conducted in SUS in primary care, urgency, home care and mental health services. It enables the Federal Government to complement scholarships in order to attract these residents and to propose programs of education of preceptors in order to ensure a quality expansion. These measures aim at ensuring the education of doctors with competencies to work in SUS in strategic areas and, in some cases, such as in primary care, they also aim at the supply of doctors. If the legal determination had been met, primary care would receive in 2019 approximately 16,500 first-year resident doctors. This number could reach 25,000 until 2024 (greater than the maximum number of doctors the supply axis has already had, 18,240). Therefore, additionally to PMM's objective of ensuring education according to SUS needs, it is also evident the intended effect on the supply of doctors in quantity and quality in order to advance towards the universalization of access to primary care by the Brazilian population.

According to data provided by MEC and MS, in order to comply with the legal determination, the Federal Government created 6,750 seats from 2013 to 2016. In 2016, it launched the National Preceptor Education Program, offering 1,000 seats in the first year, with a goal of 10,000 seats until 2019. It offered an additional education scholarship specific to FCM residents and preceptors and required goals to expand FCM residency for old and new higher education institutions and for PMM cities.

Five elements can be identified in PMM with potential to greatly strengthen the organization of the education of specialists: 1) assessment of the institution, program and students as a relevant driving force associated to the determined consequences; 2) State equipped with instruments that enable to organize and regulate the demand and offer of seats and to operationalize the distribution of students throughout the

available programs without overlap and without students having to go through more than one selection process; 3) selection centralization, removing this power from local groups, holding a great discretionary power in the selection of students; 4) assessment that measures the achievement of students in their specialty and, based on it, determines access to other sub-specialties, so that they do not stop learning what they are currently seeing in order to study what will be covered in the desired sub-specialty examination (current base of the winning strategy of "medical preparatory courses"); and lastly 5) integration of this system with the diploma revalidation assessment (Revalida) so that the "rule" used to assess Brazilian doctors upon conclusion of the undergraduate course and any specialty be used (including in a technical and operational way) to revalidate diplomas of foreign doctors, avoiding different requirement standards.

Final remarks

Data and analyses contained in this article indicate that, despite other axes provided for in the legislation but not dealt with here, PMM showed objective advances in the State's contribution to the organization of the education of human resources for SUS. This policy is strongly aligned with the ethical and political commitment to build a universal, equal and comprehensive health system. Its proposition, approval and initial implementation, marked by resistance and tensions, represented the possibility to implement a "bold" inversion of the education logic in undergraduate medical courses and in medical residency.

Analyzing the most important measures highlighted here, it is possible to observe that, starting in 2016, with Temer's government, the policy implementation was interrupted. This interruption occurred mainly in the health education axis, particularly related to changes in education and expansion of access to undergraduate medical courses, and to planning and regulation of the education of specialists. This interruption put the program's medium and long-term objectives in risk, since the suppression or reduction of any of its components deeply affects PMM as a whole. Based on the perspectives of the analysis of public policies[25], it can be considered that PMM is in the initial stage of implementation and in process of reformulation of objectives.

The expansion of undergraduate seats reached 60% of the goal. However, the planned public expansion was interrupted. The planned private expansion for places with the greatest need, in turn, was limited to the initially authorized seats. For large urban centers, the expansion of seats was authorized to existing courses, i.e., they were not submitted to the regulation criteria created by PMM. In 2017, MEC announced a five-year "moratorium" in the authorization of new seats, frustrating the goals provided for PMM for the next decade.

The implementation of the National Curricular Guidelines suffered with the suspension of the effects of the changes conducted in SINAES through Directive no. 1503, of September 2016. There is an important distance between the creation of national rules and instruments and the production of changes in concrete spaces of medical schools and health services. However, the interruption of the federal induction stops strengthening groups that used to be locally mobilized towards

changes, although it does not impede them from keeping fighting and advancing in common objectives with PMM. Without the mobilization of agents and resources towards overcoming resistance, its interruption practically draws the process back to pre-PMM contexts.

The expansion of residency seats by MEC was suspended and the seats offered by MS were drastically reduced. Therefore, the goal provided by law, to universalize the access to medical residency, will be another unfulfilled legal device. ANASEM was interrupted, and INEP assessment of residencies was not implemented. Subsequently, the undergraduate course and residency assessment was suppressed by Law no. 13530, of 2017. The integration of processes of assessment and of access to residency and the revalidation of diplomas were, therefore, no longer the State's objectives. The National Registration of Specialists was taken off the web, and COAPES was no longer a government agenda.

PMM is a bold and blunt initiative by the Brazilian State to expand the number of seats in medical education to a level that is more appropriate to international best practices. It also aims at reformulating health education to meet SUS and the population's needs.

PMM's emergency axis and its structuring and sustainable axis (on which this article is focused) significantly achieved these objectives. However, some discontinued or disconsidered medium and long-term actions put in risk the achievement of the established goals. Additionally, they postpone, once again, compliance with the constitutional principle. According to this principle, SUS should organize the education of human resources in health meeting the population's needs.

Authors' contributions

All authors participated actively in all the stages of the preparation of the manuscript.

Acknowledgements

We would like to thank Universidade Federal do Recôncavo da Bahia (UFRB), Universidade Federal de São Paulo (UNIFESP), Universidade Federal do Rio Grande do Sul (UFRGS) and Universidade de São Paulo (USP). We would also like to thank the Brazilian Ministry of Health and Ministry of Education's technical teams. We appreciate the contribution and guidance of Soraya Côrtes, UFRGS teacher and supervisor of one of the authors in a research related to the article's topic. We would also like to thank all health and education professionals, teachers, researchers, managers of all areas, workers and civil society's organizations, which have been making efforts to research, implement, improve and provide sustainability to initiatives and polices that advance towards effectively implementing the constitutional principle that provides for the organization of the education of human resources (i.e., workforce) in health according to the Brazilian population's needs.

References

1. Presidência da República (BR). Lei nº 12.871, de 22 de Outubro de 2013. Institui o Programa Mais Médicos. Diário Oficial da União. 23 Out 2013.
2. Pinto HA, Sales MJT, Oliveira FP, Brizolara R, Figueiredo AM, Santos JT. O Programa Mais Médicos e o fortalecimento da Atenção Básica. Divulg Saude Debate. 2014; (51):105-20.
3. Ministério da Saúde (BR). Secretaria de Gestão do Trabalho e da Educação na Saúde. Programa mais médicos – dois anos: mais saúde para os brasileiros. Brasília: Ministério da Saúde; 2015.
4. Feuerwerker LCM. Mudanças na educação médica e residência médica no Brasil. São Paulo: Hucitec; 1998.
5. Lampert JB. Tendência de mudanças na formação médica no Brasil: uma tipologia das escolas. 2a ed. São Paulo: Hucitec, ABEM; 2009.
6. Carvalho MS, Sousa MF. Como o Brasil tem enfrentado o tema provimento de médicos? Interface (Botucatu). 2013; 17(47):913-26.
7. Aléssio MM, Sousa MF. Regulação da formação de especialistas: inter-relações com o Programa Mais Médicos. Physis. 2016; 26(2):633-67.
8. Ceccim RB, Cyrino EG. O sistema de saúde e as práticas educativas na formação dos estudantes da área. In: Ceccim RB, Cyrino EG, organizadores. Formação profissional em saúde e protagonismo dos estudantes: percursos na formação pelo trabalho. Porto Alegre: Rede Unida; 2017. v. 1, p. 4-26.
9. Rovere MR. El Programa Más Médicos: um análisis complementario desde la perspectiva de la salud internacional. Interface (Botucatu). 2015; 19(54):635-6.
10. Campos FE, Belisário SA. O Programa de Saúde da Família e os desafios para a formação profissional e a educação continuada. Interface (Botucatu). 2001; 5(9):133-42.
11. Rodrigues PHA, Ney MS, Paiva CHA, Souza LMBM. Regulação do trabalho médico no Brasil: impactos na Estratégia Saúde da Família. Physis. 2013; 23(4):1147-66.
12. Ciuffo RS, Ribeiro VMB. Sistema Único de Saúde e a formação dos médicos: um diálogo possível? Interface (Botucatu). 2008; 12(24):124-40.
13. Amâncio Filho A. Dilemas e desafios da formação profissional em saúde. Interface (Botucatu). 2004; 8(15):375-80.
14. Marins JJN, Rego S, Lampert JB, Araújo JGC. Educação médica em transformação: instrumentos para a construção de novas realidades. Rio de Janeito: ABEM, Fiocruz; 2004.
15. Conselho Nacional de Saúde (BR). Relatório Final 11º Conferência Nacional de Saúde. Brasília: Ministério da Saúde; 2000.

16. Organização Mundial da Saúde. Trabalhando juntos pela saúde. Brasília: Ministério da Saúde; 2007.

17. Faculdade de Medicina da USP. Conselho Regional de Medicina do Estado de São Paulo. Coordenação de Scheffer M. Demografia Médica no Brasil, 2018. São Paulo: Conselho Federal de Medicina; 2018.

18. Pinto HA, Oliveira FP, Santana JSS, Santos FOS, Araujo SQ, Figueiredo AM, et al. Programa Mais Médicos: avaliando a implantação do Eixo Provimento de 2013 a 2015. Interface (Botucatu). 2017; 21 Suppl 1:1087-101.

19. Pérez PB, López-Valcárcel BG, Vega RS. Oferta, demanda y necessidad de médicos especialistas em Brasil: proyecciones a 2020. Las Palmas: Universidad de Las Palmas de Gran Canaria; 2011.

20. Nunes MPT. Residência médica no Brasil: situação atual e perspectivas. Cad ABEM. 2004; 1:30-2.

21. Dias HS, Lima LD, Teixeira M. A trajetória da política nacional de reorientação da formação profissional em saúde no SUS. Cienc Saude Colet. 2013; 18(6):1613-24.

22. Oliveira FP, Vanni T, Pinto HA, Santos JTR, Figueiredo AM, Araújo SQ, et al. Mais Médicos: um Programa brasileiro em perspectiva internacional. Interface (Botucatu). 2015; 19(54):623-34.

23. Cellard A. A análise documental. In: Poupart J, Deslauries JP, Groulx AL, Mayer R, Pires A. A pesquisa qualitativa: enfoques epistemológicos e metodológicos. Petrópolis: Vozes; 2008. p. 295-316.

24. Merhy EE. O conhecer militante do sujeito implicado: o desafio de reconhecê-lo como saber válido. In: Franco TB, Peres MAA, organizadores. Acolher Chapecó: uma experiência de mudança do modelo assistencial, com base no processo de trabalho. São Paulo: Hucitec; 2004. p. 21-45.

25. Muller P, Surel Y. A análise das políticas públicas. Pelotas: Educat; 2002.

26. Frente Nacional de Prefeitos. Cadê o médico [Internet]. 2013 [citado 25 Jun 2018]. Disponível em: http://cadeomedico.blogspot.com/

27. Universo Online (UOL). Apoio da população ao Mais Médicos sobe a 84,3% dos brasileiros [Internet]. São Paulo; 2013 [citado 25 Jun 2018]. Disponível em: https://noticias.uol.com.br/politica/ultimas-noticias/2013/11/07/apoio-da-populacao-ao-mais-medicos-sobre-a-843-da-populacao-diz-pesquisa.htm

28. Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education tostreng then health systems in an interdependent world. Lancet. 2010; 376(9756):1923-58.

Translator: Caroline Luiza Alberoni

Submitted on 02/15/18.
Approved on 08/15/18.