

## Post-graduation in Collective Health and the National Public Health System

Hillegonda Maria Dutilh Novaes <sup>1</sup>  
Guilherme Loureiro Werneck <sup>2</sup>  
Eduarda Angela Pessoa Cesse <sup>3</sup>  
Moises Goldbaum <sup>1</sup>  
Maria Cecília de Souza Minayo <sup>4</sup>

**Abstract** *This article deals with a public policy in education, Post Graduation in Collective Health, to identify forms of dialogue of this policy, with the public health policy, the SUS, starting in 1990. The main product of PGSC policy is the training of masters and doctors, essential for teaching and research in the field. Bibliographic review and analysis of CAPES documents and databases based the analysis. Education policy was consistent over time and core to social development, alongside health policy, without presenting formal points of intercession, and its impacts occur mainly through the formation of good and committed professionals, teachers and researchers. In PGSC, professional masters programs are more relevant, for a more direct link of postgraduate programs with the SUS, and the initiatives of the Ministry of Health to finance priorities in research for the Health System. Even in initiatives that explicitly seek to approximate the knowledge produced by PG with praxis in the SUS, the mechanisms involved in translating or impacting scientific knowledge into concrete practice are complex and must be context specific and thematic.*

**Key words** *Public policies, Post-graduation Collective Health, SUS*

---

<sup>1</sup> Faculdade de Medicina, Universidade de São Paulo. Av. Dr. Arnaldo 455, Cerqueira César. 01246-903 São Paulo SP Brasil. hidutilh@usp.br

<sup>2</sup> Instituto de Medicina Social, Universidade do Estado do Rio de Janeiro. Rio de Janeiro RJ Brasil.

<sup>3</sup> Centro de Pesquisas Aggeu Magalhães, Fiocruz. Recife PE Brasil.

<sup>4</sup> Claves, Escola Nacional de Saúde Pública, Fiocruz. Rio de Janeiro RJ Brasil.

## Introduction

*Background:* The devastation caused by the two world wars; growing economic and social development as from the 1950s; and the renewed confidence in the possibility of construction of a stable and fair world through representative actions and instances, under the responsibility of the State, with the support of Science and Technology, have caused it to be considered fundamental, in the most wide-ranging political contexts, that public policies in education and health should be proposed for sustaining of this development<sup>1</sup>.

In Brazil, these ideas were present in the initial decades after the Second World War. But only after the re-democratization, in the 1980s, did the Federal Constitution of 1988 put in place a proposal for a health policy of a national nature: creation of the Unified Health System, or SUS, which established access for the Brazilian population to health as a right of all, and a duty of the State<sup>2</sup>.

The 1988 Constitution also established education as a right of all, and a duty of the State and of the family. Public policies of the area relate to the whole population, as a single entity. But in spite of the reduction of illiteracy and increased access to education, at the three levels, there is a consensus that priority has not been given to education<sup>3,4</sup>.

The objective of these brief considerations is to introduce some assumptions that orient this article. The first is that public policies in health and in education have historically followed different paths, but they have the 1988 Constitution as a common landmark and political context, not to be ignored in understanding their development. The second is to define the limits of our analysis – postgraduate education (in its strict, academic, meaning), in the period 1990–2017 – and in particular postgraduate studies in Collective Health ('PSCH'), and their dialog with the SUS, without removing them from context. The third assumption relates to the conceptual and methodological option of developing the analysis not from the point of view of activity of the public power, in which the proposals are included, but to admit that public policies are *complex and multidimensional processes that are developed at multiple levels of action and decision – local, regional and transnational; and involve various actors – people in government, lawmakers, electors, public administrators, interest groups, target publics and transnational organizations – which act in institutional situations and in specific geographical and politi-*

*cal contexts, aiming to resolve public problems, but also to achieve certain distributions of power and resources*<sup>5</sup>. Within this understanding we can indeed identify forms of dialog and reciprocal influences between PSCH and the SUS.

Four theoretical models have been put forward for analysis of public policies: The *sequential or policy cycle* model; the *multiple streams framework*; *punctuated equilibrium* theory; and the *advocacy coalition framework*.<sup>5</sup> These concepts are part of a multidisciplinary field in which public policies are explained through understanding of the ways in which public action functions, its continuities and ruptures and the multiplicity of factors and forces that form the processes in real life. For the analysis developed here, of implementation of PSCH, and discussion of possible articulation/influences/repercussions/impacts on and with another public policy, the SUS, the model that is most promising is the *advocacy coalition framework*, in which the main author of reference is Paul Sabatier<sup>6</sup>.

Sabatier posits that six conditions are necessary for processes of analysis of implementation of public policies: (1) clear and consistent objectives, that enable them to be evaluated; (2) an adequate causal theory for the change that the policy intends to achieve; (3) a legal structure that favors commitment between those responsible for the policy and the target groups; (4) that those responsible for the implementation should be technically competent and committed; (5) that there should be political support from the executive and legislature; and (6) that the policy should aim for social impact, without compromising the causal theory that orients it<sup>5,7,8</sup>. The analysis of PSCH in this paper is oriented by these parameters, and data is presented based on a review of the literature, analysis of documents, and information extracted from the GeoCapes database<sup>9</sup>, which contains records relating to the postgraduate program since 1995.

### Higher education in Brazil in 1990–2017 – draft of a scenario

Teaching in Brazil has been considered as being in three sections: *Primary, secondary and higher*. It is broadly accepted that in this period universal schooling in primary education has been consolidated, but that important differences in quality persist, especially in the poorer regions and for less favored social groups. Secondary education has been presented as the part with the worst performance over the period,

quantitatively and qualitatively<sup>3</sup>. Although there was an expansion of school registrations in the 1990s, a stabilization in secondary education has been observed in the 2000s. In 2013 the proportion of the population aged 18 to 29 with full secondary education was 48% in the North and Northeast Regions, and between 60% and 65% in the Center-West, South and Southeast. This is the population that can seek further education, and it has not accompanied the expansion of supply of study places at that level<sup>10</sup>.

There are two views on the situation of Brazilian higher education. On one side, when compared to other countries, even those which have similar economic development, Brazil is seen as presenting a low gross rate of registration, which affects its social development. On the other side, value is given to the major investment made as from the 1960s, with the creation of the federal universities in all the states, with a vocation for teaching, research and extension courses, which was accompanied by the creation of a postgraduate system in all the areas of knowledge. This investment is seen as having produced significant social and economic impact, and for this reason it should be maintained and enhanced, although its cost is high<sup>4</sup>.

In the 1990s there was an important expansion in the offer of places in higher education, especially in the private sector, even though the number of candidates per place and the uptake of places was higher in public education<sup>11</sup>. Between 1990 and 2005 the growth of registrations for in-person courses was 106% in public education and 239% in private education, proportionately greater in the Northern Region (489%), the Center-West (329%) and the Northeast (198%)<sup>12</sup>. In 2010 there were 5,450,000 registrations in in-person undergraduate courses, or 100% more than in 2000<sup>13</sup>. The increase in the offer of places in higher education, and the increase in the number of those registered, were favored by the higher budget allocation to the Education Ministry (MEC), efforts and improvement of management in the universities, and creation of new federal universities. In private education, there was an expansion of credit to low-income students with the *Student Financing Fund (FIES)*, and the *University For All (Prouni) Program*, making it possible to fill the places not taken up.

In this period there was a significant expansion of places (638,700 in 2008) for undergraduate courses in the area of health (biomedicine, biological sciences, physical education, nursing, pharmacy, physiotherapy, speech therapy, med-

icine, veterinary medicine, nutrition, odontology, psychology, social service and occupational therapy). However, the uptake of places was only 50%, with major variations between courses. Medicine had the highest number of places, and 100% uptake; nursing and physical education offered more than 100,000 places, with low uptake. This scenario is important for the SUS, and also for PSCH, which accepts professionals from these areas. In the last five years, opening of many faculties of medicine has been authorized, as a response to a diagnosis by the federal government that there were not enough doctors to serve the population, which also led to the *Mais Médicos ('More Doctors')* Program<sup>14,15</sup>.

It needs to be pointed out that there is an important activity of courses that are also subsequent to graduation in the country. In health, with frequent participation by state and municipal health departments, courses of the most varied type and duration are offered, including medical and multi-professional residencies, specialization courses and other modalities. There has also been expansion of distance-learning courses which contribute to professional qualification and are instances of support for the SUS<sup>16</sup>.

Post-graduation studies in the strict sense are considered to be the most successful program in Brazilian education. Since they began, they have been formulated with the specific purpose of contributing to Brazil's development by creation of teachers and researchers who have the competencies for research. One series of measures helped toward this purpose: the solid coordination/articulation between MEC, through CAPES (Higher Education Personnel Enhancement Coordination – *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior*), and the National Research Council (CNPq – *Conselho Nacional de Pesquisa*) (created in 1951), and other instances of financing, and the universities. To sustain the enhancement of these arrangements over time the *National Postgraduate Plans (PNPGs)* were created. As specific measures that strengthened this policy we can cite the fact of higher education institutions only being able to become universities when they create post-graduation programs in the strict sense, starting with master's degrees. Another example is in the regular assessments, made by CAPES, with attribution of a score to the programs. Those with the best assessments and those that stand out in research are supported with the higher volume of funds, and represent an important social capital for the universities. The growth – quantitative and qual-

itative – of Brazilian scientific output published in scientific periodicals in the period was, without a doubt, the result of this policy.

Starting in the 2000s, the need began to be discussed for expansion of the contribution of postgraduate studies to economic and social development in a direct manner, as well as production of scientific knowledge<sup>17,18</sup>. The creation of the Professional Master's (MP) Degree, before the end of the 1990s, is part of this perspective, in that an effort is made to build articulations between qualification, production of knowledge and its transfer to sectors that are productive and strategic for social development.

Over the period there has been continuous growth in the number of Postgraduate Plans (PPGs), particularly in the public universities. But there has also been an increase in the private sector's participation, principally in the case of MP degrees. Between 1999 and 2010 the Southeastern Region has continued to be predominant (with half of the country's programs in 2011), although the percentage participation of other regions has increased significantly<sup>19</sup>.

The percentages of growth in registrations in the same period, by postgraduate course, have been varied: 138% for doctorates (71,300 registrations in 2011), 90% for master's degrees (104,100 registrations in 2011) and 1,970% for MP degrees (12,100 registrations in 2011). In 2011, 12,217 doctorates were awarded, 39,220 master's degrees, and 3,610 Professional Master's degrees. Of these, 29,009 awards were in the Southeast Region, with characteristics different from the other regions: doctorates were 28% of the total of its courses (compared to approximately 17% in the South and the Northeast) and the region had 63% of the PM degrees, with 93% of them in private institutions (vs. 45% in the South, and 24% in the Northeast)<sup>19</sup>.

## II Postgraduate studies in Collective Health, 1990-2017

It was in the military regime, which began in 1964, that the system of postgraduate studies in Brazil was systematized and institutionalized. Major pointers were the so-called *Newton Sucupira Opinion* (Opinion 977/65 of the Federal Education Council)<sup>20</sup>, and the University reform of 1968<sup>21,22</sup>. The Newton Sucupira Opinion constituted the bases of the Brazilian postgraduate studies model<sup>20</sup>. It defined and characterized courses at the levels of master's degree and doctorate, established the distinctions between

postgraduate studies in the broad sense and the strict sense, set out the bases for the Professional Master's degree and Doctorate, and strengthened the idea that postgraduate studies (in the strict sense) are an essential part of the purpose of the university. The University Reform introduced a series of modifications in higher education, notably in the federal universities, creating the departmental structure, and the apportionment of value to an academic career, which contributed to the articulation and coordination between the activities of teaching and research in the university environment. In 1965 it was estimated that there were approximately 27 master's degree courses and 11 doctorate courses<sup>23</sup>; and in 1975 there were 370 and 89, respectively.

The First National Post-graduation Plan (PNPG)<sup>24</sup> identified that the process of expansion of postgraduate studies in the country had until then taken place in an unarticulated form, influenced principally by factors of context that demanded responses to the growing needs for education in the population<sup>24</sup>. These responses were through isolated initiatives and with insufficient support from the governmental bodies responsible for scientific and educational policies, and this caused instabilities in the system, a low level of performance in terms of awards of degrees, and announcement of an expansion, with geographical concentration, and in specific areas<sup>24</sup>. Based on this diagnosis, the first PNPG<sup>24</sup> established, as principal guidelines for the period 1975–79, institutionalization of the postgraduate system in universities, improvement of the levels of its performance, and reduction of disparities between regions and areas of knowledge. The mechanisms proposed for achieving the targets were: student grants; expansion of the teacher training programs; and hiring of new university teachers<sup>24</sup>.

The second PNPG (1982-1985)<sup>25</sup> strengthens the recommendations of the first PNPG<sup>24</sup> and also sought to harmonize the system of postgraduate studies with the Second National Development Plan, and the Third Brazilian Scientific and Technological Development Plan. It recommended making a diagnosis of the areas of knowledge so that priorities could be set in accordance with their development in the scientific and technological fields, and their strategic importance for the development of the country. The directives of the second PNPG<sup>25</sup> also emphasized the need for institutionalization and enhancement of the system of assessment created in 1976 as a way of ensuring quality in postgraduate studies<sup>26</sup>. In

the third PNPG (1986–89)<sup>26</sup>, a concern appears with integration of postgraduate studies with the national science and technology system, with a view to the country's economic and social development.

The first three PNPGs<sup>24-26</sup> had a decisive influence in which Brazilian postgraduate studies expanded at their initial stage. Up to 1990 the expansion took place basically in public institutions, in contrast with what happened in the undergraduate courses<sup>27</sup>. Postgraduate courses also grew in a more planned way, the result of a State policy expressed in the PNPGs, with clear objectives of qualifying teachers and giving value to the academic career, improving the performance of the system and adapting research in the university to the needs of scientific and technological development, and national priorities<sup>27</sup>.

Postgraduate studies in the strict sense in Collective Health also went through a process of expansion in this period. The first master's degree courses in the area were opened at the National Public Health School of the Oswaldo Cruz Foundation (ENSP/Fiocruz) in the years 1967 and 1968. However, this initiative was interrupted<sup>28</sup>. In the 1970s, postgraduate studies in Collective Health began their process of institutionalization, and in 1975 there were five master's degree courses (in São Paulo University: at the Public Health Faculty (FSP/USP) from 1970, the Medical Faculty (FM/USP-RP) from 1971, and the Medical Faculty (FM/USP) from 1973; at the Federal University of Bahia in 1973; and at the Social Medicine Institute of Rio de Janeiro State University (IMS/UERJ), in 1974); and there were three doctorate courses (FSP/USP, 1970; FM/USP-RP, 1971; and FM/USP, 1973)<sup>29</sup>.

From 1975 to 1990, there was modest growth in the area compared to the rest of the National Postgraduate System ('SNPG') and in 1990 there were nine postgraduate programs, of which five combined master's and doctorate courses, with increases of 80% and 67% in the number of courses, respectively.

In contrast to the period of consolidation and initial expansion of Brazilian postgraduate studies, with three PNPGs, the third of these (1986–89)<sup>26</sup> was not immediately followed by another plan. As from 1996 new discussions were begun for development of the fourth PNPG<sup>30</sup>. Although they were not officially announced, their guidelines were adopted by CAPES and included the need for diversification and allowance for flexibility in the forms of organization of postgraduate studies, enhancement of the assessment

mechanisms and greater international involvement<sup>31-33</sup>. The fifth PNPG (2005–10) underlined the guidelines of the fourth, as to the need for diversification and combat of asymmetries of the system, and recommended incorporation of qualitative aspects in the process of assessment, in particular as to the impact of postgraduate studies on society<sup>30</sup>. At the end of 2010, in partnership with CNPq and other development agencies, CAPES presented the sixth PNPG<sup>33</sup>, at the same time preparing the National Education Plan (PNE) of the Education Ministry, to be in effect from 2011 to 2020. It states: "For the first time, a national education plan covers proposals for teaching guidelines and policies in postgraduate studies. This is because the PNPG is an integral part of the PNE"<sup>34</sup>. The areas of health, biological sciences and the various forms of engineering were defined as strategic areas.

As from 1990, in the context of the guidelines of the fourth and fifth PNPGs<sup>30,33</sup>, the growth of the PSCH was higher than the average of the SNPG. In 2010, the area had 38 academic programs (16 master's programs, 1 doctorate program and 21 joint master's and doctorate programs), representing an expansion by almost a factor of 4 in 20 years. For the SNPG as a whole, in the same period the growth in academic courses for master's degree and doctorate was 2.8 and 3.5 times, respectively.

The area of collective health achieved a degree of geographical decentralization greater than that seen in the whole of the SNPG, and in the overall area of health. In 2016, for example, almost 40% of the academic PPGs in collective health were outside the main center comprising the South and Southeast, while this percentage was 35% and 28%, respectively, in the whole of the SNPG, and in the overall area of health. This de-concentration, however, was more widely in the direction of the Northeast than the North and Center-west regions. In these latter two regions, the area, in 2016, had 12% of its PPGs, compared to 14% in the whole of the SNPG. In 2000 the area already had 33% of its academic PPGs outside the South and Southeast, while this percentage was 22% in the whole of the SNPG and 14% in the whole area of health. Between 2000 and 2016, the de-concentration was less fast in Collective Health, with an increase of 17% outside the South and Southeast, compared to 57% and 99% in the SNPG as a whole and in the whole area of health, respectively.

The number of awards of degrees after 1990 increased, particularly for doctorates. In 2016,

in the whole of the SNPG, some 50,000 master's degrees and 20,000 doctorates were awarded, increases from the numbers of 1996 by a factor of 4.7 for master's degrees, and a factor of 6.9 for doctorates<sup>9,34</sup>. In the area of Collective Health there was a similar situation, but with a lower increase in relation to the number of doctorates awarded in the period. In 2016, in Collective Health, 690 master's degrees and 321 doctorates were awarded, which was four times the numbers of 1996<sup>9,35</sup>. The ratio of doctorates to master's degrees in academic programs increased over time, and in 2016 was 0.42 for the whole of the SNPG, and 0.47 in Collective Health.

In the 1990s the incentive to create Professional Master's Degrees (MP degrees) in applied areas became part of the agenda of the Higher Education Technical-Scientific Council of CAPES (CTC-ES). The MPs are for operational learning, development and innovation in areas directly applicable to a field of activity of the professional being trained<sup>36</sup>. In 1995 CAPES Ministerial Order 47<sup>37</sup> ordered implementation, in CAPES, of appropriate procedures for recommendation, monitoring and assessment of these courses, and this was complemented in 1998 by CAPES Ministerial Order 80<sup>38</sup>. In 2009 CAPES issued Normative Order 17<sup>39</sup>, which became the regulatory framework for this type of qualification.

The objectives of PMs, as defined by Order 17<sup>39</sup>, are: to train qualified professionals for the exercise of advanced professional practice able to transform procedures, to meet social, organizational, professional or employment market demands; to transfer knowledge to society for the purpose of national, regional or local development; and to promote integrated articulation of professional training, with a view to improving the efficacy and efficiency of public and private organizations through solution of problems and generation and application of appropriate processes of innovation; and finally to help add competitiveness and increase the productivity of public and private companies and organizations.

The first MP degrees were given at the end of the 1990s, and in recent years this type of qualification has grown and become a highlight in its own right. The first proposal in the area of Collective Health came from UERJ (Rio de Janeiro State University), was approved by CAPES in 1999 and began functioning in 2000. In 2013 the CTC-ES created the position of Area Joint Coordinator for MPs, and an agenda of creation of professional programs, with incentives for their organiza-

tion in a network. The network programs were initially created to qualify teachers for secondary education, through the so-called 'Prof' qualifications: *ProfLetras*, *ProfMat*, *ProfFísica*, among others. Later networks for professional training in other sectors started functioning, examples being: the Northeastern Biotechnology Network, the Northeastern Family Health Qualification Network (RENASF), the network MP in Family Health (*ProfSaúde*) and the MP in Public Administration (*ProfIAP*).

In 2016, the SNPG had 786 MPs. The areas of assessment with the most MPs were: Interdisciplinary (96 programs), teaching (82), management (75), education (47), collective health (40) and environmental sciences (32). Proportionately, the area of Collective Health is the second-largest, with 44% of its PPGs in this modality.

The growth of MP courses in Collective Health was faster between 2008 and 2012, growing from 12 to 30 courses, and reaching 40 in 2016. The number of degrees awarded increased from 193 in 2012 to 503 in 2016, and of these 126 (25%) were MPs in Family Health, from RENASF. Fiocruz played an important role in relation to the MPs. Without taking into account its participation in the RENASF, which involves eight other institutions, the MPs of Fiocruz awarded 387 master's degrees in the four-year period 2013–16, 25% of the total awarded in the period. Fiocruz's capillarity, and its linkage to the Health Ministry, helped it to have a pre-eminent role in the training in Collective Health, especially in the MPs, with courses offered in various states of Brazil.

The discussion at present centers on the creation of the professional doctorate, which was specified in the National Post-graduation Plan. In early 2017 CAPES published Education Ministry Order 389<sup>40</sup>, which instituted, in the post-graduate area, two new modalities: Professional Master's Degree and Professional Doctorate. In the same year, CAPES Order 131 was published which sets out, though still only generically, presentation of proposals for new courses in these modalities, and procedures for monitoring and assessment and validity of the titles awarded<sup>41</sup>.

### III Postgraduate studies in Collective Health and the SUS

Looking at strict-sense postgraduate studies in Brazil, and in particular those in Collective Health, one can see that the necessary conditions for its implementation as a public policy were present in the period 1990-2017: clear and con-

sistent objectives (PNPGs), a causal theory for the change (train competent teachers and excellent researchers), stable legal structure, committed to dialog between the official bodies and the programs; coordinators responsible for implementation of the proposal; and political support from the executive, legislature and the universities.

Even though in all the PNPGs, social impact is stated as an objective in an increasingly explicit manner, it is the creation and progressive regulation of MPs that most clearly signals this direction. There was no change in the nuclear framework of strict-sense postgraduate studies in general, nor in that of Collective Health, as a direct response to the other public policies implemented in the period, specifically the SUS.

When the public policies in health in the period were analyzed, of which the SUS is a nuclear part, other factors also become apparent: the macro political dimensions, the complexity of the social decisions, with results and issues that are inherent to this specific policy, and direct articulations with the policy in education are not detected<sup>42</sup>. As to the relationship of the SUS with education policy, it is important to recognize that as well as the teaching and qualification of professionals, teachers and researchers, the health system is also affected, among other dimensions, by the level of schooling of the population, and the qualification of its technical and specialized staff.

In the cross-related analysis proposed here – PPGs in general and Collective Health in particular – students' achievement of academic and professional master's degrees, and doctorates, were adopted as the object of analysis, rather than the knowledge produced by those programs, and even less, the possible impacts on the SUS and the population's health, which calls for additional

analyses – which are indeed challenging, both in conceptual and methodological terms.

Although the social impact is always the greater objective to be achieved, and although initiatives have been taken that seek to bring the knowledge produced in the programs, and the health services, closer together (such as the DECIT/SCTIE/Health Ministry tenders), the mechanisms of production of impact by the effect or transfer of scientific knowledge are complex and they can be better understood when one takes a specific subject. It is not feasible to study the impact of the area of Collective Health as a whole<sup>43,44</sup>.

The growth of postgraduate studies in Collective Health as from 1990 in terms of the number of programs was intense, and less geographically concentrated than the group of programs as a whole, with the Northeast Region outstanding. As to the number of awards of academic master's degrees and doctorates, and their proportionality, the area accompanied the overall trend. Collective Health had a highlight position in the creation of MP degrees, with an important volume of degrees awarded in the Northeast Region, through an MP in network, and those coordinated by Fiocruz. The growing and increasingly outstanding presence of a health research institute like Fiocruz as a proponent of PPGs in Collective Health can be seen as an important way of bringing the public policy on postgraduate studies closer to the SUS, which something that happens only infrequently in other areas. However, although there are signs of recognition of public policy in health in the postgraduate studies in Collective Health in the period analyzed for this article, its dynamics were dominated by the public policy of strictly postgraduate studies.

## Collaborations

The article was proposed by HMD Novaes and MCS Minayo. The text was prepared by HMD Novaes, GL Werneck and EAP Cesse and revised by M Goldbaum and MCS Minayo.

## References

- Muller P. *Les politiques publiques*. 9ª ed. Paris: Presses Universitaires de France; 2011.
- Paim J, Travassos C, Almeida C, Bahia L, Macinko J. The Brazilian Health System: history, advances and challenges. *Lancet* 2011; 377(9779):1778-1779.
- Ghiraldelli Júnior P. *História da educação brasileira*. São Paulo: Cortez Editora; 2006
- Instituto de Pesquisa Econômica Aplicada (IPEA). Educação no Brasil: atrasos, conquistas e desafios. In: Tafner P, editor. *Brasil: o estado de uma nação*. IPEA, Brasília; 2006. p. 121-227.
- Araujo L, Rodrigues ML. Modelos de análise de políticas públicas. *Sociologia, Problemas e Práticas* 2017; 83:11-35.
- Sabatier PA. The advocacy coalition framework: revisions and relevance for Europe, *Journal of European Public Policy* 1998; 5(1):98-130.
- Lima LL, D'Ascenzi L. Public policy implementation: analytical perspectives. *Rev. Sociol. Polit* 2013; 21(48):101-110.
- Sabatier PA, Weible W. The Advocacy Coalition Framework. Innovations and Clarifications. In: Sabatier PA, editor. *Theory of Policy Process*. Boulder, Colorado: Westview Press; 2007.p. 189-220.
- GeoCapes. Sistema e informação georreferencial. [aplicativo na Internet]. [acessado 2017 Dez 30]; Disponível em: <https://geocapes.capes.gov.br/geocapes/>
- Instituto de Pesquisa Econômica Aplicada (IPEA). *Boletim Políticas Sociais* 2015; (23):204- 205.
- Corbucci PR. *O ensino superior brasileiro na década de 90: políticas sociais. acompanhamento e análise*. Brasília: IPEA; 2000.
- Corbucci PR. *Desafios da educação superior e desenvolvimento no Brasil*. Brasília: IPEA; 2007. (Texto para discussão, n. 1287).
- Corbucci PR. *Evolução do acesso de jovens à educação superior no Brasil*. Brasília: IPEA; 2014. (Texto para discussão, n. 1950)
- Haddad AE, Morira MC, Perantoni CR, Brenelli SL, Passarella T, Campos FE. Undergraduate programs for health professionals in Brazil: na analysis from 1991 to 2008. *Rev Saude Publica* 2010; 44(3):383-393.
- Girardi SN, van Stralen ACS, Cella JN, Maas, CDW, Carvalho, CL, Faria EO. O impacto do Programa Mais Médicos na redução da escassez de médicos na Atenção Primária em Saúde. *Cien Saude Colet* 2016; 21(9):2675-2684.
- Instituto de Pesquisa Econômica Aplicada (IPEA). Educação no Brasil: atrasos, conquistas e desafios. In: Instituto de Pesquisa Econômica Aplicada (IPEA). *Brasil: o estado de uma nação*. Brasília: IPEA; 2006. p. 144-228.
- Dantas F. Responsabilidade social e pós-graduação no Brasil: ideias para (avali)ação. *RBPG* 2004; 1(2):160-172.
- Balbachevsky E. A pós-graduação no Brasil: novos desafios para uma política bem-sucedida. In: Schwartzman S, Brock C. *Os desafios da educação no Brasil*. Rio de Janeiro: Nova Fronteira; 2005. p. 285-314.
- Cirani CBS, Campanario MA, Silva HHM. A evolução do ensino de pós-graduação senso estrito no Brasil: análise explanatória e proposições para a pesquisa. *Avaliação* 2015; 20(1):163-187.
- Brasil. Ministério da Educação (MEC). Parecer nº 977/65. Aprovado em 03 de dezembro de 1965 [documento na Internet]. Brasília: MEC/CEF; 1965.[acessado 2017 Dez 30]; [cerca de 3 p]. Disponível em: [https://www.capes.gov.br/images/stories/download/legislacao/Parecer\\_CESU\\_977\\_1965.pdf](https://www.capes.gov.br/images/stories/download/legislacao/Parecer_CESU_977_1965.pdf).
- Cury CRJ. Quadragésimo ano do parecer CFE nº 977/65. *Revista Brasileira de Educação* 2005; 30:7-20.
- Martins CB. A reforma universitária de 1968 e a abertura para o ensino superior privado no Brasil. *Educação & Sociedade* 2009; 30(106):15-35.
- Velloso J. Introdução. In: Velloso J, organizador. *A Pós-Graduação no Brasil: Formação e Trabalho de Mestres e Doutores no País*. Brasília: Fundação Coordenação de Aperfeiçoamento de Pessoal de Nível Superior; 2002. Vol. I.
- Brasil. I Plano Nacional de Pós-Graduação (1975-1979). Brasília: MEC/CEF; 1975. [Documento na Internet]. [acessado 2017 Dez 30]; [cerca de 57 p]. Disponível em: [http://www.capes.gov.br/images/stories/download/editais/I\\_PNPG.pdf](http://www.capes.gov.br/images/stories/download/editais/I_PNPG.pdf).
- Brasil. Ministério da Educação (MEC). II Plano Nacional de Pós-Graduação (1982-1986). [documento na Internet]. Brasília: MEC/CEF; 1982. [acessado 2017 Dez 30]; [cerca de 16 p]. Disponível em: [http://www.capes.gov.br/images/stories/download/editais/II\\_PNPG.pdf](http://www.capes.gov.br/images/stories/download/editais/II_PNPG.pdf).
- Brasil. Ministério da Educação (MEC). III Plano Nacional de Pós-Graduação (1986-1989) [documento na Internet]. Brasília: MEC/CEF; 1986. [acessado 2017 Dez 30]; [cerca de 24 p]. Disponível em: [http://www.capes.gov.br/images/stories/download/editais/III\\_PNPG.pdf](http://www.capes.gov.br/images/stories/download/editais/III_PNPG.pdf).
- Martins CB. O ensino superior Brasileiro nos anos 90. *São Paulo em Perspectiva* 2000; 14(1):41-60,
- Nunes ED. Pós-graduação em saúde coletiva no Brasil: histórico e perspectivas. *Physis* 2005; 15(1):13-38.
- Nunes ED. Saúde Coletiva: Revisitando a sua História e os Cursos de Pós-Graduação. *Cien Saude Colet* 1996; 1(1):55-69.
- Brasil. Ministério da Educação (MEC). Plano Nacional de Pós-Graduação (2005-2010) [documento na Internet]. Brasília: MEC/CEF; 2004. [acessado 2017 Dez 30]; [cerca de 91 p]. Disponível em: [https://www.capes.gov.br/images/stories/download/editais/PNPG\\_2005\\_2010.pdf](https://www.capes.gov.br/images/stories/download/editais/PNPG_2005_2010.pdf).
- Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES). *Discussão da Pós-Graduação Brasileira* Vol. I. Brasília: CAPES/MEC; 1996.
- França IA. A gestão da pós-graduação no Brasil através de seus planos nacionais: os desafios dos gestores de cursos. *Revista GUAL* 2012; 5(Ed. Esp):43-67.
- Brasil. Ministério da Educação (MEC). VI Plano Nacional de Pós-Graduação (2011-2020) [documento na Internet]. Brasília: MEC; 2010. [acessado 2017 Dez 30]; [cerca de 309 p]. Disponível em: <http://www.capes.gov.br/images/stories/download/Livros-PNPG-Volume-I-Mont.pdf>.



34. Brasil. Ministério da Educação (MEC). Comissão Especial de Acompanhamento do PNPG-2011-2020 - Relatório final 2016, Sumário Executivo. [acessado 2017 Dez 30]; Brasília: MEC; 2010 [cerca de 43 p]. Disponível em: <http://www.capes.gov.br/images/stories/download/relatorios/231117-Relatorio-PNPG-Final-2016-CS.pdf>.
35. Barata RB, Goldbaum M. Perfil dos pesquisadores com bolsa de produtividade em pesquisa do CNPq da área de saúde coletiva. *Cad Saude Publica* 2003; 19(6):1863-1876.
36. Quelhas OLG, Faria Filho JR, França SLB. O mestrado profissional no contexto do sistema de pós-graduação brasileiro. *RBPG* 2005; 2(4):97-104.
37. Neves AFB. Portaria 47, de 17 de outubro de 1995. Determina a implantação na Capes de procedimentos apropriados à recomendação, acompanhamento e avaliação de cursos de mestrado dirigidos à formação profissional. *RBPG* 1995; 2(4):147-148.
38. Brasil. Portaria 80, de 16 dezembro de 1998. Dispõe sobre o reconhecimento dos mestrados profissionais e dá outras providências. *Diário Oficial da União* 2009; 11 jan.
39. Brasil. Portaria Normativa 17, de 28 dezembro de 2009. Dispõe sobre o mestrado profissional no âmbito da Fundação Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Capes. *Diário Oficial da União* 2009; 29 dez.
40. Brasil. Portaria 389, de 23 de março de 2017. Dispõe sobre o mestrado e doutorado profissional no âmbito da pós-graduação stricto sensu. *Diário Oficial da União* 2017; 24 mar.
41. Brasil. Portaria 131, de 28 de junho de 2017. Dispõe sobre mestrado e doutorado profissionais. *Diário Oficial da União* 2017; 30 jun.
42. Machado CV, Lima LD, Baptista TWF. Políticas de saúde em tempos contraditórios: caminhos e tropeços na construção de um sistema universal. *Cad Saude Publica* 2017; 33 (Supl.2):e00129616.
43. Ottoson JM. Knowledge-for-action theories in evaluation. Knowledge utilization, diffusion, implementation, transfer and translation. *New Directions for Evaluation* 2009; 124:7-20.
44. Ângulo-Tuesta A, Santos LMP, Iturri JA. Processos e desafios da interação entre pesquisa e políticas na perspectiva dos pesquisadores. *Cien Saude Colet* 2018; 23(1):7-15.

---

Article submitted 05/01/2018

Approved 30/01/2018

Final version submitted 05/03/2018



