

Professional Doctorate in Primary Care (DPAPS): a legacy for the Rio de Janeiro SUS

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OPINION ARTICLE

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Abstract *Since 2009, the Municipal Health Secretariat of Rio de Janeiro (SMS-RJ) has encouraged the creation of a Master's degree in primary health care at the National Health School/Fiocruz (ENSP/Fiocruz). In the following decade, this proposal became one of the main lines of the institution's professional stricto sensu postgraduate program, which culminated in CAPES approving the first professional doctorate class in the history of Fiocruz-RJ offered in 2024. The class comprises primary health care (PHC) students from Rio's SUS and Fiocruz employees in science, technology and innovation. Regarding the profile of the PHC students, the highlights were women (61.5%), a degree in medicine (53.8%), a mean of 15 years since graduating, 10 years working in PHC, graduates of a medical or multiprofessional residency course (69.2%) and a Master's degree in primary care from ENSP/Fiocruz or UFRJ (84.6%). The SMS-RJ thus leaves a legacy for Brazilian Public Health as a leader in the promotion of Fiocruz-RJ stricto sensu professional training programs, innovating in the end-of-course work, reviving the presence of doctors in the classes and bringing the contributions of the Portuguese SNS, a source of inspiration for the PHC reform undertaken in Rio de Janeiro, to the Rio de Janeiro SUS debate.*

Key words *Primary Health Care, Health Postgraduate Programs, Rio de Janeiro*

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Introduction

Since 2008, with the publication of the Report “Primary Health Care Now More Than Ever”, the World Health Organization¹ has called on governments of all countries to reflect on a set of reforms to be implemented: (i) universal coverage reforms, (ii) service provision reforms, (iii) reforms in public policies that could guarantee healthier communities, and (iv) leadership reforms. Inspired by the primary health care reform in the Lisbon and Tagus Valley region, Portugal², Rio de Janeiro has undergone profound changes in the last 15 years. Several factors were crucial along this path: (i) teamwork with the motivation of professionals, (ii) internal and external communication, (iii) strengthening of training and continuing education actions, (iv) structuring of new Family Health Clinics, (v) implementation of electronic medical records and units’ computerization, (vi) payment linked to performance indicators, (vii) contractualization of healthcare between funders and providers, (viii) creation of a portfolio of actions and services for PHC, (ix) political leadership and, finally, (x) quality and evaluation of PHC attributes.

PHC history in Rio de Janeiro can be told before and after the 2009 Reform, in which this Municipality prioritized and invested in expanding access to health services through family health teams. As reported by some authors^{3,4}, this evolution in population coverage hiked from 3.5% to over 70% from 2009 to 2024, with some negative inflections in the 2017-2020 period.

Since the onset of the Reform, the Municipal Health Secretariat of Rio de Janeiro (SMS-RJ) has encouraged the creation of a Master’s degree in PHC at the National School of Public Health/Fiocruz (ENSP/Fiocruz). In the following decade⁵, this proposal became one of the main lines of the institution’s *stricto sensu* professional postgraduate program, culminating in the approval by CAPES of the first professional doctoral class in the history of Fiocruz-RJ. The class comprises primary healthcare students from Rio de Janeiro and Fiocruz employees in science, technology, and innovation.

By 2024, seven professional Master’s classes with more than 100 graduates had been formed, bringing back to ENSP/Fiocruz the presence of doctors in the classes since its selection process⁶, in the composition of the multidisciplinary classes. The rich exchange of experiences and experiences in the Rio de Janeiro SUS by multidisciplinary teams enriches the course completion

work. It qualifies health professionals, managers, and administrators for the Public Health challenges in Rio de Janeiro, the second largest city in the country, with 6.2 million inhabitants and 20.2% of older adults⁷, according to the IBGE Demographic Census 2022. In the 1990s, the SMS-RJ divided all the city’s neighborhoods into ten health planning areas (Figure 1) to manage such a populous city.

Regulating *stricto sensu* professional training programs in Brazil and the professional doctorate – primary health care profile (DPAPS)

In Brazil, the Coordination for the Improvement of Higher Education Personnel (CAPES) regulates, evaluates, and regulates *stricto sensu* postgraduate programs. Its primary regulation was updated in 2019 and sets out the main objectives for this professional training⁸. The need for a profile of an autonomous student capable of generating and transferring technologies, building innovative knowledge, and seeking to meet the social, economic, and organizational demands of several societal sectors is proposed for the Doctorate (Chart 1).

The proposal submitted by Fiocruz-RJ and approved by CAPES provided for flexible training paths, building a core with few mandatory subjects in the first year of the Course and the possibility of choosing elective subjects suited to the profile of each student and contextualized to the reality of the world of work. For the profile of PHC students, the day-to-day management and work in the Rio de Janeiro SUS can also foster the development of technical-technological products (PTT) applied to the most relevant and challenging strategic problems for Rio de Janeiro. CAPES recognizes more than 10 PTT modalities (Chart 2).

ENSP/Fiocruz also defined two structuring concentration areas: Public Policies, Health Management and Care; and Health Surveillance and Assessment. Together, they define 14 research lines with a faculty of 30 PhDs, including those on the permanent staff and collaborators (Chart 3).

Considering the references of significant adult learning, which values the knowledge incorporated from practices and the skills and values developed by students throughout their lives, building the curricular structure is oriented towards integrating theory and practice and corresponds to the significant areas of competence expected in the Course’s training.



Figure 1. Division of health planning areas according to the Municipal Health Secretariat of Rio de Janeiro, 2024.

Source: Authors, based on the administrative division used by SMS-RJ in 2024.

Chart 1. Objectives of Professional Masters and Doctorate Courses.

I - To train qualified professionals for advanced, innovative, and transformative practices in work processes to meet the social, economic, and organizational demands of the several sectors of the economy
II - To transfer knowledge to society in order to meet social and economic demands toward national, regional, and local development
III - To contribute to the aggregation of knowledge in order to boost productivity in companies and public and private organizations
IV - To pay attention to innovation processes and procedures, whether in industrial activities that generate products or in the organization of public or private services
V - To train doctors with a profile characterized by autonomy, the ability to generate and transfer innovative technologies and knowledge for unprecedented solutions to highly complex problems in their field of activity

Source: CAPES, Ordinance No. 60 of March 20, 2019.

The curricular workload was defined as 2,400 hours (minimum of 2 years) to 3,000 hours (maximum of 4 years) in a flexible regime, distributed in six mandatory subjects and offering the possibility of choosing 19 elective subjects in the two concentration areas. Furthermore, students may choose, together with their advisor, other

activities to make up the course credits, including professional internships, teaching, management, and participation in research activities, as defined in the Course Regulations. According to the proposal submitted to CAPES, it is necessary to complete a total of 70 credits and activities, 15 of which are mandatory subjects, 15 are elective

subjects, 10 are flexible activities, and 30 are for the preparation of the final project, and 75% attendance of the subjects is also mandatory.

Regarding the course completion projects, CAPES⁸ also highlights that they are innovative and applicable to the reality in which they are inserted.

Art. 12 – Specific guidelines for the formats of the final papers will be explained in the guiding documents for each assessment area, allowing for innovative formats, highlighting the relevance, innovation, and applicability of these papers for the segment of society in which the graduate may work (CAPES, 2019).

Portrait of the students of the First Professional Doctorate class – PHC profile

The Notice launched for two areas of concentration – Public Policies, Health Management and Care, and Health Surveillance and Assessment – had 25 slots for the two profiles (APS – SMS/RJ and CT&I – Fiocruz) and approved, at the end of the entire selection process, a total of 13 professionals from SMS-RJ. For the “PHC” profile, a total of 75 applications were received from candidates from the Municipal Health Secretariat of Rio de Janeiro, that is, a candidate-to-slot ratio of approximately 6:1. Sixty-seven of these were validated by ENSP/Fiocruz Academic Secretariat. After the first stage (English test), 65 candidates proceeded to the second stage (written test). Thirty-six candidates (55.4%) were approved for the third stage (resumé analysis and preliminary research project). Finally, 28 candidates participated in the interviews (fourth and final stage), and 13 were approved. The entire selection process was free of charge, and 20% of the slots were reserved for affirmative action candidates.

Chart 2. Examples of technical-technological production (PTT) proposed by CAPES in the calculation of the submitted Course production.

Acronym	Description
DMDI	Development of Teaching and Instructional Material
DA	Application development
ED	Editorial
DP	Product Development
AT	Work Presentation
ST	Technical Service
CCD	Short Duration Course
OE	Organization of Events
PRT	Radio or TV Program
DT	Technique Development
OPT	Other Technical Productions (Research Report, Maintenance of Artistic Work, Model, Letters, and Maps)

Source: CAPES, examples of technical-technological production indicators.

Chart 3. Concentration Areas and Research Lines of the Professional Doctorate Course.

Concentration Areas	Research Lines
Public Policies, Management and Health Care	1) Primary Health Care
	2) Care, Work Processes, and Practices in Health
	3) Development, Public Policies, and Health Systems
	4) Human Rights and Health
	5) Education, Health Communication, and Culture
	6) Health Planning and Management
	7) Policy and Management of Science, Technology, and Innovation (ST&I) in Health
Health Surveillance and Assessment	1) Social Determination of Health-Disease Processes: Production, Work, and Territory
	2) Epidemiology of Noncommunicable Chronic Conditions and Life Cycles
	3) Epidemiology of Communicable Diseases
	4) Information and Health
	5) Health Monitoring and Evaluation
	6) Health, Work and Environment
	7) Health Surveillance

Source: Professional Doctorate Program, ENSP/Fiocruz new program/course proposal data.

Regarding the profile of the students (Figure 2 and Table 1), some similarities and significant differences were observed between the validation and final approval. For example, women were more present in both groups. They represented 79.1% of the validated candidates and 61.5% of those approved. The average time since graduation also was similar between the beginning and the end of the selection process (16 years and 15 years). However, the graduation completed by health professionals in the Rio de Janeiro SUS network differed. Nurses represented 50.7% of the initial candidates and declined to 23.1% by the end of the process, surpassed by doctors, who accounted for 53.8% of those approved – we also had dentists (15.4%) and one nutritionist (7.7%). Three institutions accounted for approximately 50% of those approved: the Federal University of Rio de Janeiro (UFRJ), the Federal University of the State of Rio de Janeiro (UNIRIO), the Federal Fluminense University (UFF), followed by the State University of Rio de Janeiro (UERJ), which alone accounted for 30.8% of those selected for the Course.

When analyzing the training and professional integration path after graduation, we observed first of all that 53.8% work in planning 1.0/2.1/2.2 (including people who work in the Subsecretariat of Promotion, Primary Care and Health Surveillance (SUBPAV), at the SMS-RJ headquarters in Cidade Nova). The mean work seniority in PHC was about 10 years, and around 70% of those approved had completed Medical or Professional Residency and at least one Specialization Course. The same participation refers to those who took a Professional Master's Course in PHC, either at ENSP/Fiocruz (69.2%) or UFRJ (15.4%). Only 15.4% of those selected took another Master's program that did not have PHC as its scope. Teaching experience is also shared by a similar group of health professionals, having published at least one article or book chapter and having developed at least one technical-technological production (PTT). The most significant deficiency observed is participation in research projects, with only 38.5% of students recording this activity on their Lattes CV.



Figure 2. Students approved for the Professional Doctorate – APS profile (DPAPS) – 1st class - ENSP/Fiocruz in partnership with SMS/RJ.

Source: Authors, based on the final results published by ENSP/Fiocruz in July/2024.

Table 1. Profile of candidates validated (N=67) and approved (N=13) for the first class of the Professional Doctorate in Primary Health Care (DPAPS) at ENSP/Fiocruz, August/2024.

Variables	Validated	(%)	Approved	(%)
Gender				
Male	14	20.9	5	38.5
Female	53	79.1	8	61.5
Graduation time				
Mean (in years)	16		15	
Planning Areas in which they work				
1.0/2.1/2.2	21	31.3	7	53.8
3.1/3.2/3.3	25	37.3	3	23.1
4.0/5.1/5.2/5.3	21	31.3	3	23.1
Profession				
Nurses	34	50.7	3	23.1
Doctors	12	17.9	7	53.8
Dentists	6	9.0	2	15.4
Nutritionists	5	7.5	1	7.7
Pharmacists	4	6.0	0	0.0
Others ^a	6	9.0	0	0.0
The institution where they graduated ^b				
UFRJ, UniRio, UFF	32	47.8	6	46.2
UERJ	10	14.9	4	30.8
Time working in PHC in Rio de Janeiro				
Mean (in years)	8		10	
Completed a Medical or Professional Residency Program?				
Yes	20	29.9	9	69.2
No	47	70.1	4	30.8
Completed a Specialization Course?				
Yes	60	89.6	9	69.2
No	7	10.4	4	30.8
Type of Master's Degree completed				
MPAPS, ENSP/Fiocruz	18	26.9	9	69.2
MPAPS, UFRJ	10	14.9	2	15.4
MPAPS, UNESA	2	3.0	0	0.0
Other Master's	37	55.2	2	15.4
Teaching Experience?				
Yes	42	62.7	9	69.2
No	25	37.3	4	30.8
Participation in a Research Project?				
Yes	30	44.8	5	38.5
No	37	55.2	8	61.5
Published an article or book chapter?				
Yes	45	67.2	9	69.2
No	22	32.8	4	30.8
Published any technical-technological product (PTT)?				
Yes	40	59.7	10	76.9
No	27	40.3	3	23.1

^aOther courses include Psychology, Physiotherapy, Speech Therapy, and Physical Education. ^bOther institutions that were registered with a person having completed the degree: Celso Lisboa, Barra Mansa University Center, FRASCE, IFRJ, UFRRJ, Vassouras University, Campos Medical School; and institutions with two or more registrations: Castelo Branco University, Souza Marques College, UNESA, UNISUAM, UGF, and UNIGRANRIO.

Source: Search in the CV Lattes of approved candidates and final results published by SECA/ENSP/FIOCRUZ in August/2024 and CNES/Ministry of Health, accessed in April/2024.

Challenges and perspectives

The year 2024 will be marked in the history of primary health care in Rio de Janeiro as the beginning of a new stage in training SUS workers, teachers, managers, and administrators.

The main challenges are (i) reconciling the study time of student-workers, immersed in the PHC of the second largest city in Brazil, and translating all the knowledge acquired over four years to the SUS service network in Rio, (ii) using population-based data specific to primary healthcare in IBGE household surveys⁹ (National Health Survey, Continuous National Household Sample Survey - PNAD, National Demographic and Health Survey), (iii) developing technical-technological products provided for in *stricto sensu* courses, such as the production of audiovisual content that can be used in virtual communities on distance learning platforms (EAD). To this end, the support of the OTICS-Rio Network in its podcast/livecast¹⁰/videocast studio is an important partnership to be developed between SMS-RJ and the Coordination of the *Stricto Sensu* Professional Program. Today, SMS-RJ already develops live cast sessions in presentations such as “*Papo de Vigilância*”, “*Webnários da SUBPAV*”, “*Ciclos de Debate*”, (iv) incorporating teachers in the area of Epidemiology and Statistics was relevant in the Professional Master’s course that made the Doctorate possible, considering that Health Surveillance at SMS-RJ is one of the most innovative in the entire country. This last aspect deserves to be highlighted, as Rio de Janeiro was the pioneer in structuring the response to the COVID-19 pandemic with several pioneering measures in the country, such as the vaccination schedule for the entire population, the indication of the booster dose, the organization of the rapid response and support for major events and predictive modeling; in the implementation of the country’s first Epidemiological Intelligence Center (CIE)¹¹ with support from Pan American

Health Organization (PAHO)¹², and in the incorporation of new non-traditional data sources for surveillance for early detection of public health emergencies¹³. Furthermore, it was also a pioneer in the incorporation, monitoring, and modeling of climate data applied to human health for epidemiological intelligence and health surveillance, which contributed to the Heat Wave Protocol of Rio de Janeiro, the first city in the country to have an operational protocol for city resilience to heat waves. We also have the development of georeferenced tools for principal public health challenges, such as GeoVacina for vaccine rescue and GeoTB for tuberculosis. The coordinated and comprehensive strategies for recovering vaccination coverage have led to a reversal of the decline in coverage and an award for the city at ExpoEpi, hosted by the Health and Environmental Surveillance Department of the Ministry of Health.

As perspectives, we should underscore the contribution to the advancement of science in the training of SUS professionals to work as preceptors and in the teaching of disciplines related to primary health care in higher education institutions, undergraduate courses, medical residency programs, and multidisciplinary programs. We also believe that some talents will pursue academic careers as researchers in either the public or private sector, contributing to the development of new technical-technological products that help solve problems in the care and management of processes in primary health care.

The Municipal Health Secretariat of Rio de Janeiro thus leaves a legacy for Brazilian Public Health as a leader in promoting the *stricto sensu* professional training programs of Fiocruz-RJ, innovating in the final course work, reviving the participation of doctors (almost absent in other National School of Public Health courses) and bringing to the debate of the Rio de Janeiro SUS the contributions of the Portuguese National Health System, a source of inspiration for the entire PHC reform undertaken in Rio de Janeiro.

Collaborations

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References

1. Organização Mundial de Saúde (OMS). *Relatório Mundial de Saúde 2008. Cuidados de Saúde Primários: agora mais do que nunca*. Editor da versão Portuguesa: Alto Comissariado da Saúde, Ministério da Saúde de Portugal, OMS; 2008.
2. Pisco L, Pinto LF. De Alma-Ata a Astana: o percurso dos Cuidados de Saúde Primários em Portugal. 1978-2018 e a génese da Medicina Familiar. *Cien Saude Colet* 2020; 25(4):1197-1204.
3. Soranz D, Pinto LF, Penna GO. Eixos e a Reforma dos Cuidados em Atenção Primária em Saúde (RCAPS) na cidade do Rio de Janeiro, Brasil. *Cien Saude Colet* 2016; 21(5):1327-1338.
4. Silva VC. *Análise das Internações por condições sensíveis à atenção primária como indicador de efetividade na estratégia de saúde da família* [dissertação]. Rio de Janeiro: Faculdade de Medicina, Universidade Federal do Rio de Janeiro; 2024.
5. Prefeitura da Cidade do Rio de Janeiro. Informativo da ENSP/Fiocruz destaca a parceria da SMS-RJ no Programa de Mestrado Profissional em Atenção Primária à Saúde [Internet]. Rio de Janeiro: Rede OTICS-RIO, SMS-RJ; 2024 [acessado 2024 jul 12]. Disponível em: <https://oticsrio.com.br/2024/05/02/informativo-da-ensp-fiocruz-destaca-a-parceria-da-sms-rj-no-programa-de-mestrado-profissional-em-atencao-primaria-a-saude/>.
6. Pinto LF, Engstrom EM, Gutiérrez AC, organizadores. *Mestrado Profissional em Atenção Primária à Saúde. Resumo das Dissertações*. 2ª ed. Rio de Janeiro: ENSP/Fiocruz; 2024.
7. Instituto Brasileiro de Geografia e Estatística (IBGE). Censo Demográfico 2022. Sistema IBGE de Recuperação Automática – SIDRA. belas - População por idade e sexo. Resultados do universo [Internet]. Rio de Janeiro: IBGE; 2024 [acessado 2024 jul 26]. Disponível em: <https://www.ibge.gov.br/estatisticas/sociais/populacao/22827-censo-demografico-2022.html?edicao=38166&t=resultados>.
8. Brasil. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES). Portaria nº 60, de 20 de março de 2019. Dispõe sobre o mestrado e doutorado profissionais, no âmbito da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – CAPES. *Diário Oficial da União* 2019; 22 mar.
9. Pinto LF, Silva VSTM. Avaliação da atenção primária à saúde nas unidades da federação: a construção de uma linha de base no SUS pelo IBGE. In: Felisberto E, Barros FPC, Hartz Z, organizadores. *Saúde, sociedade e meio ambiente: ensaios preliminares*. Brasília: Conselho Nacional de Secretários de Saúde; 2022. p. 168-185.
10. Prefeitura da Cidade do Rio de Janeiro. OTICSCAST – O Programa ao vivo da OTICS-RIO [Internet]. Rio de Janeiro: Rede OTICS-RIO, SMS-RJ; 2024 [acessado 2024 jul 29]. Disponível em: <https://oticsrio.com.br/podcast/>.
11. Prefeitura da Cidade do Rio de Janeiro. Centro de Inteligência Epidemiológica (CIE) [Internet]. Rio de Janeiro: SVS/SUBPAV/SMS-RJ; 2024 [acessado 2024 jul 29]. Disponível em: <https://epirio.svs.rio.br/quem-somos/>.
12. Oliveira e Cruz DM, Carvalho LF, Costa CM, Aguilar GMO, Saraceni V, Cruz OG, Durovni B, Soranz DR, Garcia MHO. Centro de operações de emergência na COVID-19: a experiência do município do Rio de Janeiro. *Rev Panam Salud Publica* 2022; 46:e9.
13. Morais JHA, Oliveira e Cruz DM, Saraceni V, Ferreira CD, Aguilar GMO, Cruz OG. *Non-traditional sources for health surveillance: using emergency data for early-detection* [pré-print Scielo versão 1]. [acessado 2024 jul 29]. Disponível em: <https://preprints.scielo.org/index.php/scielo/preprint/view/8996/version/9514>.

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