Public health educational projects in Brazil: revealing the influence of contexts – social, political and of the world of work – over time

ABSTRACT This article analyzes the breadth of experiences of educational projects in Public Health/Collective Health in Brazil, with an emphasis on contextual elements, so as to point out characteristics and key questions present in the Brazilian experience of this mode of education. The work and education of sanitarians are traced historically, and their contradictions, alignments and perspectives identified. This will be discussed over six different historical periods starting in 1889, on the basis of the following analytical categories: a) socio-political conjunction; b) sanitarians practice; c) educational projects; and d) institutionalization and organization of public health. An analytical table is presented and discussed. Based on it, evidence of the mutual influence over time of socio-health contexts, educational projects and sanitarians world of work is pointed out. The challenge is to provide a counter-hegemonic education vis-à-vis the capitalist model, and that Public Health/Collective Health graduates manage to position themselves and work within this perspective. Making adaptations to the educational project seems valid. However, it may not be enough to alter structural tensions, since the political and economic setting has historically determined ‘for what’, ‘where’, ‘how’ and ‘for whom’ sanitarians work.

Introduction

In Brazil, Public Health and Collective Health knowledge is present in both postgraduate (lato sensu and stricto sensu) and undergraduate courses, like the bachelor’s degree in Collective Health and subjects in the health field courses. The creation of a degree in Collective Health is recent. Starting in 2008, there has been an expansion in such courses – 22 are currently distributed over the five regions of the country.

Considering the 20th and 21st centuries, changes may be identified in the educational project of sanitarians – the name assigned to professionals who were awarded either the degree or graduate qualifications in Public Health and Collective Health (PH/CH). Those changes respond to complex arrangements that exist between the internal dynamics of the CH field and the world of work in health, considering the influences of their broader social and political contexts.

Internationally, there is a predominance of graduate courses to qualify Public Health workers. However, some countries have created degrees in PH/CH, like Germany, Austria, Canada, Colombia, USA, Gambia, The Netherlands, Hungary, Ireland, Mexico, Kenya, UK and Uganda. In Brazil, after nearly 40 years of existence of stricto sensu PH/CH undergraduate programs, regular graduate courses were opened in the field. This was the response to processes and discussions that occurred over 20 years, but did not reach consensus about the opening of such courses. However, a change in the country’s higher education policies led to the expansion of federal public universities, mainly opening new courses. This was the ‘window of opportunity’ that witnessed the start of PH/CH undergraduate courses in Brazil.

This was also related to the increasing demand for professionals in this field owing to the expansion of Brazil’s national health care system, the Unified Health System (Sistema Único de Saúde – SUS). Advocates for that opening argued that undergraduate courses could qualify PH/CH professionals with more agility and in larger numbers than graduate courses, yet emphasizing a ‘generalist’ profile, as opposed to the ‘specialist’ focus of graduate courses. Furthermore, they could provide a broader base of knowledge and practices in PH/CH over the four years of a professional course. These and other justifications oriented the opening and curricular setup (markedly broader and more integrated) of PH/CH undergraduate courses in Brazil.

These characteristics approximate and differentiate the Brazilian experience from those of other countries. For example, the BSc in Public Health of the School of Public Health and Health Professions of the University at Buffalo, USA, has an integrated curriculum that aims at: a) teaching students the habit of thinking, how public health professionals think about problems, analyze and solve them; and b) develop essential Public Health skills through an interdisciplinary curriculum with strong emphasis on analysis of the social determinants of health and with a broad view of health in all public policies.

The Brazilian educational experience and the above mentioned one, in the USA, understand health as a broad concept under the perspective of the social determination of health and health promotion, unlike other bachelor programs in the health field that are oriented by the biomedical model. However, Brazilian PH/CH trajectories and contextual elements involving them produce specificities in the assumptions and consequences of the features of graduate courses, as well as for the strategies these features are based on.

Hence, on the one hand, very much like other international experiences, the curricular structure of Brazilian undergraduate courses is interdisciplinary and mainly oriented by three axes of the field of Collective Health: a) Epidemiology; b) Health Policy, Planning, Management and Evaluation; and c) Social and Human Sciences in Health. Qualified
professionals can: a) make public policies; b) plan, program, coordinate, control and evaluate health systems and services; c) strengthen health promotion actions; d) carry out environmental, health and epidemiological surveillance actions; and e) support strategic actions to consolidate the process of changing to the health care model.

On the other hand, the Brazilian experience has a specific ideological dimension related to the Brazilian Sanitary Reform (Reforma Sanitária Brasileira – RSB). This is expressed by a core of values, namely, solidarity, emancipation, equality, justice and democracy – one that fights for the Right to Health and is committed to the consolidation of SUS and to making it as a real public, universal and quality system.

This article analyzes the educational projects in Public Health/Collective Health in Brazil as a whole, with emphasis on contextual elements, so as to point out characteristics and key questions present in the Brazilian experience of this education modality.

Material and methods

In order to provide one main methodological baseline, we conduct a historiographical analysis of Brazilian Public Health, so as to recognize the projects or guidelines for educating ‘sanitarians’. These historical events, processes and practices that occur over time and space all relate to each other and are not easily organized. Identifying the order of these events and the possibility of comparing them, as well as the instruments that give us access to the context are the challenges involved in using history as method in this article.

We also survey and analyze the production of knowledge on the education of sanitarians in Brazil, aiming at understanding some of the debates, guidelines and educational tracks that supported or challenged the process of conception of this education in the period considered herein. Next, the educational projects are discussed, from 1889 to the present, based on analytical and interpretive categories created to make up the analytical-interpretive table, namely: a) period; b) socio-political conjunction; c) the sanitarians practice; d) educational project; and d) institutionalization and organization of the public health.

Outcomes

Table 1 shows the analytical and interpretive categories that contextualize the educational projects of Public Health in Brazil divided into six historical periods, since 1889, when Brazil the monarchy period is replaced in Brazil by the republican era.
Table 1. Public Health educational projects in context

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>SOCIO-POLITICAL CONJUNCTION</th>
<th>SANITARIANS PRACTICE</th>
<th>EDUCATIONAL PROJECT</th>
<th>INSTITUTIONALIZATION AND ORGANIZATION OF PUBLIC HEALTH</th>
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<tr>
<td>OLD REPUBLIC (1889-1930)</td>
<td>Need for a public health structure, improving the flow of people and merchandise</td>
<td>Health inspections, vaccination, the gathering of statistical and epidemiological data, as well as the health education strategy to inculcate personal hygiene habits and prevent disease, were understood as activities related to public health</td>
<td>There was no professional project in public health. However, the gradual espousal of hygienic and eugenic policies and ideologies promoted the development of a national identity that intersected with the thinking and activities surrounding the health-related practices of the professionals of the time</td>
<td>Office of the General Director of Public Health (DGSP, 1897) Ref: Pro-Sanitation League (1918) Reform of public health, rural sanitation, construction and expansion of health services (1910-1930) Establishment of the model of health centers (1920-1930) Creation of the Retirement and Pension Funds (Eloy Chaves Law, 1923)</td>
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<tr>
<td>VARGAS ERA (1930-1945)</td>
<td>Democracy and citizenship restricted to classes of workers supported by corporatist principles Establishment of the Estado Novo (1937-1938)</td>
<td>Radio broadcasting of scientific and health information; compilations about ways of living and preventive actions regarding care for newborns and expectant women</td>
<td>Medical students on scholarships taking postgraduate courses in public health at Johns Hopkins University incorporated US public health practices and injected them into the country’s public health services</td>
<td>Creation of the Ministry of Education and Public Health (1930) Social security and occupational health instituted by the Ministry of Labor, Industry and Trade Retirement and Pension Institutes extended to cover most formal sector urban workers (1933-1938) Separation between medical services (Ministry of Labor, Industry and Trade) and other health-related actions (Ministry of Education and Public Health)</td>
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<tr>
<td>DEMOCRATIC INSTABILITY (1945-1964)</td>
<td>Liberal populist governments under a democratic regime with developmentalist economic policies Emergence of social struggles for labor rights (1960)</td>
<td>Flourishing of health education with a vision of balancing scientific and popular knowledge, prospecting approximations with science in the community Emergence of social thought in health, critical of the structures and logics of health practice</td>
<td>Critique of the “biologization” of course contents in health-related education, particularly public health, with a view to having a more bio-psycho-social approach</td>
<td>Creation of the Ministry of Health (1953) Need to municipalize health services, under pressure from developmentalist sanitarians movement Laws unify urban workers’ social security rights (1960)</td>
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<tr>
<td>MILITARY DICTATORSHIP (1964-1985)</td>
<td>Emergence of the Brazilian Health Reform Movement and struggles for democracy Slow and gradual opening toward the democratic regime</td>
<td>Two ideological profiles permeating sanitarians in state employment: in favor of and indifferent to the Brazilian Health Reform Movement and the process of re-democratization</td>
<td>Creation of stricto sensu graduate courses in Public Health and Collective Health Proposal for a scientific field based on social determinants for understanding health-disease processes: Collective Health Creation of research institutions in the Public Health/Collective Health area, Abrasco and Cebes, which encourage</td>
<td>Creation of the National Social Security Institute (INPS) (1966) Creation of the Brazilian Center for Health Studies (1976) and of the Brazilian Collective Health Postgraduate Studies Association (1979) Creation of the National Medical Attention and Social Security Institute (INAMPS) (1977) and expansion of health service coverage</td>
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Discussion: aspects of projects or guidelines for Public Health education in Brazil

In the early 20th century, sanitarians who were taken for sanitarians were mainly doctors. There was no educational project for sanitarians other than the practice of those workers, who held State power positions thanks to their medical training. This included mainly combating endemic diseases and promoting sanitation. After 1913, the Rockefeller Foundation, motivated by philanthropy, but also by economic and political interests, influenced the development of the Brazilian health apparatus, with: a) the introduction of the Flexner Report; b) the offer of scholarships to study at Johns Hopkins University, in the United States; c) cash donations for purchasing inputs; and d) the normalization of techniques.9,22

This led to one certain pedagogical and ideological matrix of teaching at institutions, such as the Public Health School of the University of São Paulo (FSP/USP). It was based on scientific aspects of hygiene, and aimed at preparing technical staff to fill in positions in the public health field and at strengthening investigative procedures and professional technique.

In the early 20th century, Brazilian sanitarians launch the debate on the perspective that disease in a society is related to both culture and politics. Our problems would be related to the following dichotomic situations: a) the coast and the hinterland; b) health and disease; and c) the modern and the backward, the disease appearing as an obstacle to progress.

Table 1. (cont.)

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<tr>
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<tr>
<td>NEW REPUBLIC (1988 - PRESENT)</td>
<td>Incentive to unrestricted outsourced work Alteration in the Labor Code (CLT) making agreements between employers and employees override the labor legislation</td>
<td>Intensification of public health activity in public sector health management positions and in academic research.19</td>
<td>Expansion of undergraduate courses in Collective Health leading to activity by professionals in defense of SUS and the Brazilian Health Reform. In these courses’ National Curricular Guidelines there are skills, abilities, attitudes and knowledge in the fields of: a) Health Management; b) Attention to Health; and c) Health Education.20</td>
<td>Creation of the Single Health System (Sistema Único de Saúde – SUS) (1988).12 Constitutional Amendment 29, defining SUS funding and the responsibilities of the federal, state and municipal governments (2000).12 Approval of Constitutional Amendment 86/2015, which consolidates underfunding for SUS, de-linkage from federal revenues for 21 years.</td>
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Source: Produced by author.
and civilization. According to this school of thought, national development would be possible on the basis of Hygiene and Eugenics, with actions in the fields of health education, vaccination, statistical data collection – epidemiology starts here –, lab tests and health inspections.

In the early decades of the 20th century, courses were created in some Brazilian states to prepare professionals in Public Health, aimed at creating an ‘institutional structure’ that would work in public health projects, thus supporting national development. In the state of São Paulo, at the Institute of Hygiene – today the Public Health School of the University of São Paulo (FSP/USP) –, such courses were offered since 1928, named as: a) I Rural Hygiene Course for Physicians; b) II Rural Hygiene Course for Physicians; c) Graduate Course on Hygiene and Public Health for Physicians; d) Course for Public Health Educators; e) Graduate Course on Hygiene and Public Health for Physicians; e) Intensive Course on Hygiene and Public Health for Physicians of the Health Department of Mato Grosso; and f) Emergency Course on School Hygiene.

Also in Rio de Janeiro, in 1925, a course on public health and hygiene linked to the Medical School, at Praia Vermelha, was created meant to drive forward the teaching of Hygiene. This course influenced the teaching of public health and hygiene at the National School of Public Health, created in 1954. Under Getúlio Vargas administration (1930-1945), professionalization in Public Health was part of the political and ideological project, and the graduates held federal positions without undergoing a public selection exam.

Doctors were not the sole professional category in the Public Health education project. The Sanitary Education course held at FSP/USP, in 1925, is one example of other workers also taking part. The course was mainly aimed at women, who were health visitors, as part of the Sanitary Education program, and worked as well in health and hygiene centers.

The name Public Health Education – an expression analogous to that of 1919, which in the USA was understood as education in health – refers to pedagogical methods for modulating individual behaviors and preventing health problems. Particularly in São Paulo, the relationship between health and education was inseparable, due to the dissemination of hygiene and eugenics principles that were part of an ambitious project of habits reform. The idea behind this reform was to build life habits able to forge a nation based on the stereotype of a strong, healthy, productive, hardworking and disciplined man.

In this regard, several actions were adopted to sustain the hygienist discourse originating from public health education. One example is the 1926 high school education training for primary school teachers, designed to train public health educators, whose first curriculum included, among other subjects, basics on bacteriology, personal hygiene, dietetics, child hygiene and parasitology. In the first half of the 20th century, the dissemination of public health knowledge as an innovative strategy became more and more consolidated in the field of public health in São Paulo. Manuals, books and leaflets were distributed to the population, and countless radio advertisements with hygienic and eugenics principles were broadcast.

At the national level, the Propaganda and Public Health Education Service (SPES) was created, organically structured from 1923 on. According to its internal rules, the SPES should periodically publish bulletins, leaflets, posters, magazines and manuals for disseminating public health precepts, and the latest information on scientific advances in health. However, this service only became effective in 1941, when the SPES was replaced by the National Public Health Education Service (SNES). The SNES had a more solid proposal, aimed at centralizing the administration of health education practices developed in Brazil, and was only restructured in 1962.

According to the historiography on the subject, the institutionalization of Public Health in Brazil did influence the construction
of a national identity. As an example, we can cite the Scientific Expeditions to the hinterlands along the two first decades of the 20th century, counting on scientists and professionals from universities and public health services. Reports on the expeditions, which were divulged later, mapped the country’s public health conditions, mainly in rural areas, as well as the need for actions to fight diseases that plagued the population and caused delays in the national development project\textsuperscript{16}. In 1930, the Ministry of Education and Public Health (MESP), an administrative structure with strong national coordination and supervision, was created, along with: a) National Health Services; b) Regional Health Bureaus (of the federal government); and c) National Health Conferences, forums for health administrators and technicians\textsuperscript{26}.

The idea of broad health care for the population, delivered in a democratic and universal way, was not yet under discussion during this period. The concept of ‘regulated citizenship’\textsuperscript{27} indicates that the State recognized as citizens only those with a regulated occupation or profession recognized as vital to the social project. Thus, social security and occupational health were institutionalized at the Ministry of Labor, Industry and Trade (MTIC) for those individuals recognized as citizens and who were supported by corporatist principles. The population excluded from this citizenship principle – the poor, the unemployed and informal workers – was assisted by the MESP with health actions to control diseases\textsuperscript{13}.

In the early 1960s, a different line of thought on health and its social determination became stronger in Brazil, accompanied by social struggles for labor and other rights. The developmentalist public health movement advocated the need for the municipalization of health services and the premise that the population’s level of health depends on the country’s economic development. From this standpoint, health is not only related to medical care, but also to food, housing and clothing, for instance. However, these proposals and struggles were suppressed by the 1964 coup and the ensuing civilian-military dictatorship\textsuperscript{15}.

Later on, during the struggle for democracy in Brazil, the area of Public Health began to be the target of criticism, as did the model of Preventive and Social Medicine, while a new field of knowledge and practices – called Collective Health – was proposed. The new field was a departure from the positivist understanding of the health-disease process and social practices, which adopted the categorization of social determinants. The theoretical bases for the Collective Health line of thought were associated with the struggles to resume the democratic rule of law during the military dictatorship (1964-85) and to strengthen the Public Health Reform movement\textsuperscript{18}.

In addition, after the 1970s, knowledge in the area of Humanities and Social Science of Health was incorporated to the Collective Health thinking, based on the current of critical Marxism, through the approach of historical-dialectical materialism. In the process of the field's institutionalization, social thinking on health took shape in the relationship between the biological sciences and the social sciences\textsuperscript{28}.

From then on, education in Collective Health gained strength as a space for qualifying and transforming new subjects, so that they too would be committed to RSB proposals, which were: a) to be a democratic front against the dictatorship and for the re-democratization of the State; b) to introduce the idea of the Social Determination of Disease and of a health system structure; c) to bring health professionals closer to the community – Community Health; and d) health as a right of the citizenry and a duty of the State\textsuperscript{18}. Thus, graduate programs and disciplines offered in health courses dealing with this field grew in number.

After health was enshrined in the 1988 Federal Constitution as a fundamental right, the public health system (SUS) as a universal policy advocated by the Public Health Reform became one of the main fronts that sanitarians fought for. This Reform emerged
mainly from different technicians who held significant posts and positions within the state apparatus in the field of health during the Dictatorship\textsuperscript{29}. Some authors, Paim\textsuperscript{19} among them, criticized the RSB project in later years, arguing that it was inconclusive and partial, and that, in practice, its subversive discourse on the social determination of the health-disease process was excluded. The political power of this Reform was limited to health councils and managers after the 1990s, and there was no incentive to inter-sectoral action among ministries or to popular participation beyond the structures allowed by the State.

The knowledge of Collective Health gained increasingly more space in the syllabuses of health courses. However, it was – and still is – present in isolated disciplines, and sometimes deals with the SUS in a way that is superficial or lacking in historicity. The introduction of this knowledge was not sufficient to bring about a structural change in the teaching of health professions, which continued to follow the logic of the biologistic model. This context also highlighted the need for creating an undergraduate degree that would follow a different orientation.

In the late 1990s, in forums such as the Brazilian Association of Collective Health (Abrasco) and the Brazilian Center for Health Studies (Cebes), a group of former sanitarians and other social actors discussed the need for new ethical-political subjects to strengthen the idea of protecting health as a right. In this regard, the RSB movement demanded some critical structure, and postgraduate courses were not enough to provide professionals for the development of a universal health care system\textsuperscript{30}. Therefore, the education of subjects in undergraduate courses in Collective Health was linked to this political project of legitimizing the ideals this reform failed to achieve.

Regarding the financial feasibility of creating Collective Health undergraduate courses, this was mainly achieved through the Support Program for Restructuring and Expanding Federal Universities (Reuni). The Reuni was created in 2007 by the Federal Government, aimed at increasing access to and permanence in higher education. In a way, some of the characteristics of these courses – such as the fact that they were mostly evening courses, that new lecturers were hired and that the infrastructure of buildings was improved – were influenced by the Reuni Program\textsuperscript{21}. In addition, the socioeconomic profile of the students corroborates the characteristics stated in the Program’s guidelines, as the majority were female, 26 years of age on average, living with their parents, attended public schools and were from families of low income and schooling levels\textsuperscript{2}.

In 2017, the sanitarian was regulated as a State occupation, apt to carry out 130 professional activities, related to: a) planning health actions; b) coordinating health actions; c) establishing strategies for health units and/or programs; d) offering bio-psycho-social services; e) assessing health actions; f) managing financial resources; g) managing human resources; and h) coordinating dealings with social and professional entities\textsuperscript{21}. These attributions mean that the Brazilian State understands the practice of a sanitarian as related to that of a Health Manager, yet without the same set of values. There are, thus, intent differences between the training and the labor market.

Hence, a dilemma that may emerge refers to sanitarians working in the private sector, which has interests and intentions geared to the capital. This may diverge from the core values intended for sanitarian degree holders. Furthermore, sanitarians carry out practices that do not break up with those of the 19th century, and that were criticized in the formulation of the educational project for the bachelor’s degree course. For instance, the current Health Education may hark back to the old school of raising awareness among the population about the importance of being healthy and strong, of following certain usages and behavior standards, such as the globally known educational measures to combat the new coronavirus (SARS-COV-2), like wearing
masks, social distancing and using hand sanitizer.

The project of the bachelor’s degree in Collective Health displays educational novelties. However, there is constant stress involving the academic staff, even at the same university, about putting them into practice. The novelty lies in an education that: a) wants to produce a new ethical-political subject-agent to defend the Right to Health and other RSB demands; b) reinforces the critical current of Marxism and prepares students to work based on the social determination of the health-illness process; and c) qualifies a body of Collective Health technicians, framing the field's three sub-areas, to enter the public and private labor market. We reiterate that such tensions among professors may produce multiple forms of qualifying a public health professional. Therefore, whatever the university, this degree course may or may not follow the abovementioned elements.

Concluding remarks: contradictions and challenges of the Public Health bachelor degree

The education of sanitarian professionals is a project with an international presence. In Brazil, this project follows one singular path owing to the model of the Single Health System. This singularity is characterized by the struggle for the Right to Health, by other RSB demands and by a values base. The problem is its partial reach owing to possible dilemmas and ethical-political contradictions. Our understanding is that the most relevant political contradiction is Brazil’s reliance on the State – the main supporting structure for the world of capitalist production – in order to develop the Health Reform movement.

Another challenge is the fact that the Collective Health field itself is in crisis, as it stands back from the critical and social thinking, a characteristic that has set it apart from other lines of thought, such as the Public Health. This field must resume a broad concept of health, keep to counter-hegemonic and cultural issues – among them, inequalities – and return to marrying politics with the technical-scientific dimensions.

Furthermore, to resume the struggle for the right to health is to go beyond the new – and old – techniques. We must expand the field’s objects with the current challenges, with issues such as refugees, the environment, pandemics, immigration and communication.

In this regard, we emphasize the importance of history during training, so that students may be able to make a critical analysis of the ruptures and permanence of the Public Health knowledge and practices. However, history as a research discipline is not much emphasized in Collective Health undergraduate courses. This difficulty may also apply to graduate programs outside Brazil, as in the case of the inclusion of history in the syllabus of a graduate course in Public Health at the University of London. The skills of evaluating evidences and discussing historiography and interpretation are in the foreground when history is used, with their own methodologies and methods.

Lastly, what influences sanitarian professionals to develop their work? Could it be precisely their education? Their values base? The economic, political and social dimensions they live in? Changes in labor relations? The institutionalization and organization of Public Health? Our perception is that the activities of such professionals are influenced by macro and micro contextual elements of the place where they work. These include power relations, the conduction of health policies, the manager’s interest, availability of financial resources, the economic situation, political disputes, social factors, the country’s moment vis-à-vis health, and labor relations.
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Referências


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