

**“Fight the poisoners
of the people!” The
beginnings of food
regulation in São Paulo
and Rio de Janeiro,
1889-1930**

Sören Brinkmann

Professor, Instituto de Estudios Europeos/Departamento de
Ciencia Política y Relaciones Internacionales/Universidad del Norte.
Km. 5 vía Puerto Colombia
080001 – Barranquilla – Colombia
sbrinkmann@uninorte.edu.co

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Abstract

For urban Brazil, the First World War triggered a dramatic food crisis that brought with it a massive increase in falsified goods and led to an uproar among the general public. Critics targeted the health authorities, who were evidently unable to suppress these frauds. This text spans the First Republic period and shows that since its proclamation the issue of regulating the food trade was part of health policies, but implementation was repeatedly delayed because of other priorities. This situation only changed with the health reforms of the early 1920s, which allows us to identify the First World War food crisis as a decisive point for the Brazilian state to take responsibility in this area.

Keywords: First Republic; Rio de Janeiro; São Paulo; Food regulation.

Brazil's declaration of war against the Central Powers in October 1917 effectively initiated the country's participation in the First World War. Nevertheless, this conflict most likely remained in the Brazilian memory not so much for the victories or defeats on the battlefields of Europe, but because of the war's indirect effects, especially on the living conditions of the urban population. This is because even though in military terms the country's participation was minimal,¹ for urban Brazil the war triggered the most serious food crisis the country had experienced up to that point. This in turn resulted from the fact that the food supply of large cities depended heavily on imports. Before 1914 the country not only imported many luxury goods for the wealthy classes, but also large amounts of basic foods such as wheat, rice, beans, and potatoes. But with the outbreak of the conflict, Brazil quickly became a net exporter of basic goods as a result of increased demand in the warring states. For consumers in the major Brazilian cities, this process was seen in soaring prices and growing supply difficulties which especially affected the poorer strata of the population and seriously threatened their survival (Linhares, Silva, 1979). The extent of the crisis became evident in rapidly increasing social tensions. In July 1917 the price of bread and other goods had risen more than 30% compared to 1914 (Lobo, Stotz, 1985), leading to the first general strike which paralyzed the country's major cities for several days, and at least for a moment shook the social order of the First Republic (Lopreato, 2000; Meade, 1999).

Another consequence of the extreme shortage of goods was the large increase in fraud and counterfeiting in food products, which (at least according to the media) exceeded anything that had been seen before and would not stop with the end of the war. In July 1919 in the *Correio da Manhã*, the physician Antonio Leão Velloso (21 jul. 1919) expressed his outrage at the lack of honesty in the food market which had supposedly been caused by the war crisis:

We can divide the history of Brazilian customs into two periods: the first, in which falsification of any food or any drink was considered a shameful act that threatened the reputation of those who practiced it, and the second period ushered in by the war we are experiencing can be called the era of counterfeiting, in which everything is fake and we point out all types of food and drink that carry a legitimate label as a strange rarity.²

Velloso's accusation does not seem exaggerated, since it concurred with the panorama described by the daily press. Since the beginning of the war, in the Brazilian capital as well as in São Paulo the large newspapers reported with increasing frequency new cases of fraud and scandals related to the food trade. The significant public attention attracted by the issue of food quality probably results from the fact that for the first time middle and upper class consumers were also being affected; in other words, even fuller purses did not offer protection against everyday fraud. According to the daily press, this was because the "fraud industry" did not just involve the "usual suspects" (namely, the army of mobile street vendors, sellers in the street fairs, and many other small retailers which met the demands of the large population), but also renowned producers who targeted customers with more purchasing power. For example, because of the scarcity of barley which had previously been imported from the Austro-Hungarian Empire, the Antarctica brewery in São Paulo began to use rice to brew its beer (As fraudes..., 21 ago. 1916; As fraudes..., 24 ago 1916; As bandalheiras..., 26 ago. 1916), while the well-known industrial group of the Matarazzo family found itself accused of selling

low-quality cottonseed oil as Italian olive oil (Fraudes..., 4 jun. 1918). Especially frequent were the falsifications of wines and spirits from European brands like Hennessy cognac or Noilly Prat and Cinzano vermouth made in "backyard factories," since the authentic versions were almost exhausted due to disruptions in transatlantic trade (Bebidas, 7 nov. 1915; Fraudes..., 23 ago. 1916; As fraudes..., 25 maio 1918; Os envenenadores..., 7 jun. 1918; As fraudes..., 13 jun. 1918; As fraudes..., 17 jun. 1918).

What draws attention is the alarmist tone in the reports. The newspapers did not present the frauds so much as an economic assault, but rather as a threat to public health, denouncing those responsible without distinction as "poisoners of the people." To substantiate these accusations, the papers generally cited official mortality statistics that had long showed a constant share of up to 30% of deaths attributed to the so-called "diseases of the digestive system" (Uma questão..., 25 jan. 1912; Saúde..., 14 nov. 1912; A fiscalização..., 9 jan. 1916; As defesas-reclame..., 5 maio 1918). The claim of a causal relationship between these figures and food counterfeiting, however, was not firmly supported. It is true that in the manufacture of sweets and especially so-called "artificial" wines and spirits, colorants and preservatives were used freely; these often included toxic substances like boric acid, fuchsine, and various lead salts. Moreover, fraud involving inferior products or rotten food was not suitable for strengthening the health of consumers. However, it is also certain that the daily papers were not able to present many cases of severe poisoning or even deaths caused directly by fake foods. Therefore, it is likely that the figures for death caused by gastrointestinal diseases reflected above all the impact of high infant mortality, while counterfeit food probably did not exert a statistically noticeable effect (Diretoria do Serviço Sanitário..., 1920).

But the public outrage did not concern itself with details, and besides the counterfeiters it also attacked the health authorities, who were accused of complicity because of their notorious inactivity. Some press outlets took the additional step of taking the case into their own hands, exposing the flagrant impotence of the state for all to see. In São Paulo, it was especially the popular daily paper *O Combate* that in August 1916 launched its own "food control campaign," sending its reporters to conduct "inspections" in food factories around the city, encouraging readers to denounce suspicious products and sending them to private laboratories for analysis at its own expense (As fraudes..., 19 ago. 1916; As nossas indústrias..., 19 set. 1916; Pelo estômago..., 23 set. 1916). Pressure on authorities also increased with interventions by renowned doctors and columnists such as the previously cited Velloso or the well-known writer and co-founder of the Sanitary Movement, Monteiro Lobato, in São Paulo (1882-1948)(Santos, 1985; Lima, Hochman, 2005). In a 1918 article published in *O Estado de S.Paulo* Lobato dubbed his city a "paradise for counterfeiters," accusing state authorities of criminal neglect (Lobato, 1946, p.292). Moreover, it is noteworthy that, on the question of state responsibility for food hygiene, a type of inter-class consensus materialized. Thus, in July 1917 the Proletarian Defense Committee (Comitê de Defesa Proletária), which represented the interests of strikers in São Paulo, demanded not only wage increases and measures against scarcity but also implementation of effective food controls, a commitment that was assumed by the state government of São Paulo in the context of arbitration that followed the strike (A vitória..., 16 jul. 1917).

Seen against the backdrop of the international panorama, the particularity of the Brazilian case lies in its relatively “late” occurrence. The perception of a massive increase in food fraud, consequent loss of confidence in the markets, and the growing clamor for regulatory intervention by the state had already concerned the general public in many countries in the northern hemisphere since at least the mid-nineteenth century. With regard to causes, scholars generally point to the rapid industrialization and urbanization of these countries, which meant that an increasing share of their populations was moving away from traditional self-supply. Also mentioned is the anonymization of trade relations and subsequent expansion of production chains, which multiplied possibilities for manipulation and adulteration of foods. Finally, it is important to highlight the role of modern chemistry, which over the course of the nineteenth century provided ever-increasing means of manipulating food products in ways which at least sometimes had harmful effects on health. On the other

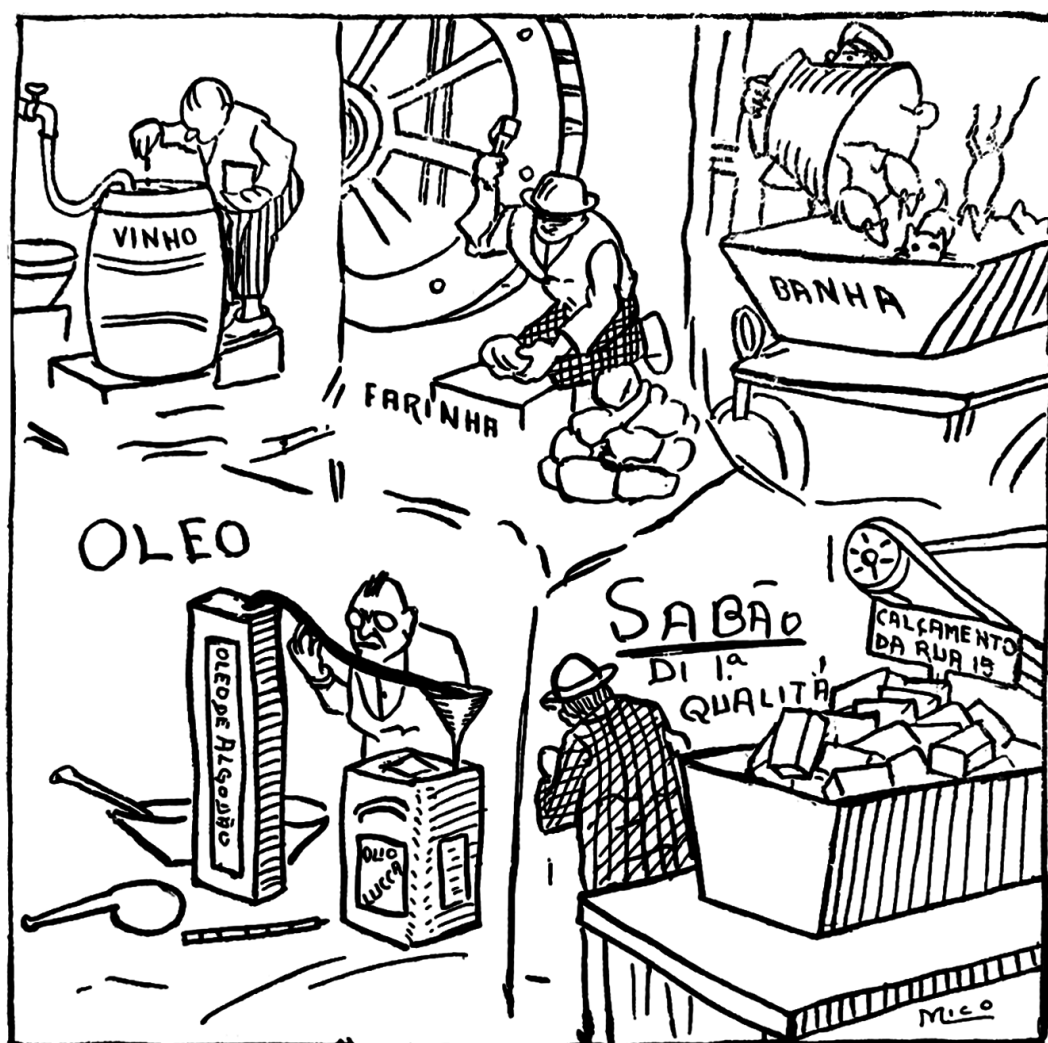


Figure 1: “He gets rich, the world is poisoned, and the health service doesn’t see it.” (A Rolha, 2 abr. 1918)

hand, the growing importance of chemistry brought a clearly "scientific" dimension to the question of food purity and quality, which left the consumer helpless and therefore almost automatically involved the state as a supposedly independent defender of public health. Against this backdrop, the so-called *Belle Époque* in many parts of the Western world was the historic moment when for the first time the state intervened in the food trade by adopting systematic laws on food quality as well as by founding food laboratories and implementing constant inspections (Scholliers, 2007; Teuteberg, 1995; French, Phillips, 2000; Atkins, 2013).

The following section will present an initial survey in order to determine the specific "place" of food hygiene in the context of public health policies throughout the First Republic (1889-1930) in Brazil's two largest cities, São Paulo and Rio de Janeiro. The Republican era appears in the historiography as a decisive period for the implementation of modern health policies. In close connection with large projects of urban reform at the turn of the century, new research infrastructures were founded and health policies implemented to sanitize living conditions in these two cities. Until the present day, the historical interest has followed the priorities of this era, namely the fight against the endemic and epidemic diseases that raged in the cities, threatening the social and economic future of the nation (Stepan, 1981; Benchimol, 1992; Meade, 1999; Mascarenhas, 1973; Blount, 1972; Santos, 1993; Antunes, 1992). Other seemingly less threatening aspects including regulation of the food trade have not yet undergone a systematic survey. This present study spans from the last phase of the Brazilian Empire until the late 1920s and analyzes legal and institutional approaches to the regulation of the food trade in the country's two largest cities. It shows that the issue of food hygiene had already been part of health policies since the founding of the First Republic, but that effective institutional anchoring in both in the national capital and in São Paulo was postponed a number of times, practically until the eruption of First World War, apparently because financial means were lacking and other health priorities existed. This only changed decisively with the health reforms that occurred during the early 1920s, which effectively allowed the food crisis caused by First World War to be identified as a turning point for the accountability of the Brazilian state in this area.

Fraud from afar: controlling import trade

A look at the first health legislation of the city of Rio de Janeiro in 1832 reveals that trade involving "corrupted or falsified" food already constituted a criminal offense in the early days of independent Brazil, even if these legal arguments were still a matter of common sense (Rio de Janeiro, 28 jan 28 1832, seção I, título II, parágrafo 1º); this is because identification of these offenses was left not to scientific experts but rather municipal police inspectors, who were left to use their senses and their experience to carry out their investigations. However, the frequent objections of the merchants, invoking their own professional experience, showed that in the long term, the inspectors' authority could not be sustained without supposedly "neutral" experts such as chemists or pharmacists (Souza, 2011). Even so, the scientific professionalization of food control would advance very little until the end of the Empire. A first step in this direction was the 1850-1851 founding of the first central state agency for public health, the Central Hygiene Board (Junta Central de Higiene), which was comprised of

five doctors and pharmacists (Brasil, 29 set. 1851). Nevertheless, the necessary infrastructure for chemical food analysis would only become available with the foundation of the hygienic laboratory at the Rio de Janeiro School of Medicine in 1883 (Brasil, 22 dez. 1883, art. 1º). But before this could become operational, new priorities appeared, since according to some experts the greatest dangers to food hygiene in Rio de Janeiro came from abroad. In his 1887 manual on food science and analysis, the first of this genre published in Brazil, the physician José Ricardo Pires de Almeida (1843-1913) wrote: “Importation introduces onto the market food products ‘made exclusively for Brazil’, that is, intentionally falsified, since laws abroad are more relaxed when dealing with production for export” (Almeida, 1887, p.X). These suspicions were also shared by the director of the customs office in Rio de Janeiro, which also required a chemistry lab to repress the huge amount of falsely declared goods in the country’s largest port (Brasil, 1885). To meet these needs, in April 1889 (a few months before the end of Dom Pedro II’s reign) the government withdrew personnel and equipment from the lab at the school of medicine in order to create in the customs area of the port of Rio de Janeiro the first laboratory for the control of imported food and beverage products (Brasil, 13 abr. 1889a, 13 abr. 1889b).

The new institution’s undisputed usefulness for customs controls guaranteed its survival, even with the advent of the Republic. In December 1891, the new administration of President Floriano Peixoto confirmed the continuity of the laboratory, which was placed under the authority of the Ministry of Finance (Ministério da Fazenda) and dubbed the National Analysis Laboratory (Laboratório Nacional de Análises). The staff was augmented and new laboratory equipment was acquired from Europe (Brasil, 30 dez. 1891, art. 2º, VIII). The prime targets of the laboratory’s work were certain toxic substances which were often added to imported goods for preservation during sea transport and were proscribed by federal law. In the first years import controls were not systematic. In 1902, however, the number of analyses jumped from around 3000 to more than 9000 because of a new law that ordered systematic control of all loads of imported foods, with no exceptions (Brasil, 1903; Brasil, 23 dez. 1901, art. 4º). The reason was the flourishing trade in cheap cognac from Charente, France, which according to the Brazilian consul in La Rochelle were produced using industrial alcohol and a number of highly suspicious colorings and flavors. In the country of origin these counterfeits had been tolerated for quite some time because of the blight caused by the phylloxera aphid, which since the early 1870s had affected viticulture throughout nearly all of Europe and caused a true catastrophe for the sector. But even before the turn of the century resistant strains were developed to revive the industry, leading the French state to view “artificial” production of wines and brandies as illegitimate. Consequently, in 1905 a comprehensive food code was developed which not only defined quality standards but also established the basis for the controlled designation of origin, which even today is used to certify cognac and wines from certain geographical areas such as Champagne or Bordeaux (Stanziani, 2004).

The Brazilian government’s efforts to intensify customs inspections made a great impression on producers who feared their profitable businesses were at an end. And when shortly thereafter the Brazilian finance minister ordered customs offices in other ports in the country to apply systematic controls to specifically target cognac from Charente, “sheer panic” resulted in that region of France, according to the Brazilian consul in La Rochelle (Brasil, 1906,

p.138). Another indication of the disciplining effect that the laboratory had on the import trade can be seen in the decrease in complaints. From the early 1890s until the turn of the century, the percentage of rejected goods decreased from 10% to 2%. After 1902 this number fell to less than 1% while the volume of imports increased constantly, highlighting clear success in suppressing fraud. However, protection of Brazilian borders continued to be vastly inadequate, given the absence of laboratories in major ports like Santos, Porto Alegre, Salvador, and Recife. And the request of the prestigious National Academy of Medicine (*Academia Nacional de Medicina*), which in 1912 asked to extend the laboratory infrastructure to all points of foreign trade, went unattended for many years (Salles Filho, 1912). This neglect is difficult to understand, not just for reasons of commercial and public health policy, but also considering that since at least 1902 the services of the National Laboratory did not weigh on the public coffers since it charged high fees, and even generated a surplus (Brasil, 1906).

In the shadow of urban reform: the food laboratory in Rio de Janeiro

With regard to food fraud within the capital, with the proclamation of the Republic responsibility fell to the new municipal authority, the Board of Health and Public Assistance (*Diretoria de Higiene e Assistência Pública*). This institute was founded after the decentralization of power by the Republican regime, which moved responsibility for public health in the newly-created Federal District from the former Central Hygiene Board to the municipal administration (Hochman, 1998). But the administrative autonomy of the municipality in practice proved to be a disadvantage, since the new city government and its limited means faced almost intractable sanitary problems. The incessant flow of migrants from the interior of the country as well as abroad combined with the extreme degradation of housing conditions in the crowded central district of the city in the last third of the nineteenth century led to a true health emergency, including among other things, periodic outbursts of epidemics with hundreds of deaths, and since at least the 1890s gave Rio its reputation as one of the unhealthiest cities in the world. It was undisputed that substantial improvement could only be achieved through radical interventions, which were impossible without financial and infrastructure support from the federal government. But this measure did not occur immediately, forcing the municipal authority to deal with the health crisis in the city as best it could (Benchimol, 1992; Meade, 1999).

The powerlessness of the municipal authorities was also reflected in the area of food hygiene, which despite other much more urgent priorities had been on the agenda since the beginning. As early as 1894, the city council had decided to build a municipal laboratory for food analysis at the suggestion of the director of public health services at that time, the physician Agostinho José de Souza Lima (1842-1921). But for unknown reasons the law was stalled until doctors at the National Academy of Medicine returned to the issue at the turn of the century and reminded the mayor of his obligations (Brasil Médico, 1900a, 1900b). The mayor then determined the functions and staff required and went so far as to even nominate future employees (Rio de Janeiro, 26 dez. 1900, 27 set. 1902a, 27 set. 1902b). But some time later it became clear that this initiative was doomed to oblivion. The person responsible for this failure was the new mayor, Francisco Pereira Passos (1836-1913), who in

1903 halted the founding of the laboratory because (as he claimed) no suitable building had yet been found to house the new institution (Rio de Janeiro, 6 jan. 1903). This must have seemed paradoxical for at least two reasons. First, the appointment of the engineer Pereira Passos in December 1902 marked the beginning of the great urban reform that would transform the unhealthy capital through ambitious urbanization projects and radical sanitation measures into a true flagship of the new Republic. Secondly, new legislation on municipal health services, which was passed only three weeks after the dissolution of the food lab, confirmed municipal responsibility for food monitoring (Rio de Janeiro, 31 jan. 1903, art. 61 e s.).

Soon after, the inactivity of the municipal administration provoked intervention by the federal health services from the General Office of Public Health (Diretoria Geral de Saúde Pública, DGSP), which at that time was under the direction of the young doctor and bacteriologist Oswaldo Cruz (1872-1917). Cruz's nomination was part of the reorganization of the federal health service within the framework of urban reform. Therefore, at the beginning of 1904 the Congress provided the DGSP (which until this time had only been responsible for health control at the ports) with additional resources and broad powers to act in the Federal District. The goal was to control the worst scourges of the capital through systematic sanitation measures that would complement the urban reform program (Hochman, 1998). Food control naturally was not the top priority, nor were the legal provisions explicitly formulated, since the jurisdiction (at least in this respect) continued to be that of the municipality (Brasil, 8 mar. 1904, art. 117). But in early 1906, when the most urgent measures against yellow fever and the plague had already been implemented with great success, the restless director of the DGSP turned to the issue of food hygiene and in a rather generous interpretation of the legal framework formed a three-member commission responsible for systematic inspection of the city's food trade. The first report, which the inspectors presented after five hundred chemical analyses and visits to fifty beverage manufacturers, food depots, and retailers, drew a frightening picture of the hygiene conditions in the food sector at that time. The inspectors, however, did not complain so much about intentional forgeries but rather ignorance and lack of hygiene in food preparation and handling, which could be attributed to the small-scale structure and general lack of industrialization in the sector. In any case, one of the few model establishments according to the commission was the Brahma brewery, which had modern equipment. But it should be noted that at exactly this time the directors of the company were planning a general overhaul of the factory, based on allegations of faulty hygiene (Cunha, 1906; Köb, 2005).

In any case, it was clear that the general situation of food hygiene in the city could only be improved by implementing detailed rules for the production and sale of food, as well as systematic and permanent monitoring, a task for which DGSP was not well prepared. On the one hand, because the commission lacked its own laboratory it was therefore obliged to use the services of the National Laboratory, which at that time was overloaded with other work. And while the commission feared indemnity claims from traders and pushed for analyses to be conducted quickly, the lab took months to deliver the results (Cunha, 1907). On the other hand, the broadening of the DGSP's jurisdiction by Congress in 1904 was only temporary. And Oswaldo Cruz's attempt to consolidate the power of the agency – including expanding its mission to food inspection – failed in Congress in 1909 despite widespread

public recognition gained by having liberated the capital from the scourge of yellow fever (Diretoria da Saúde Pública, 1910). Consequently, the federal agency's involvement in the issue of food hygiene turned out to be just a single episode which ended with the dissolution of the food inspection commission in 1911 (Diretoria do Interior, 1912).

Between the city and the state: the question of the São Paulo food laboratory

Also in São Paulo, conflicts of jurisdiction and poor infrastructure hampered rapid implementation of effective food controls, despite the important role that the state government assumed in the sphere of public health during the First Republic. São Paulo was the most prosperous state in the union, with an economy depending on a steady influx of labor from overseas; for reasons of prestige and the need for a cheap workforce, since the proclamation of the Republic it had invested considerable resources in fighting infectious diseases and at the beginning of the century achieved a remarkable reduction in mortality rates. Despite these results, the concrete organization of public health policy (particularly with respect to the division of tasks between the state government and the municipalities) remained controversial, resulting in frequent changes in sanitary legislation during the First Republic. Thus, the ambitious arrangement of 1891-1892 established that full responsibility for public health, even in the rural interior, would be concentrated in the hands of the state government, but limited financial resources and the extent of the challenges forced considerable decentralization a year later. The reforms that followed in 1896, 1906, 1911, and 1917, however, reflected a trend of gradual recentralization which, as in the case of Rio de Janeiro, was mainly driven by chronic inefficiency of the municipal administration (Mascarenhas, 1973; Blount, 1972; Santos, 1993; Antunes, 1992).

Food surveillance was probably the area of health administration that suffered most from these back-and-forth scenarios. Even so, food hygiene had been a health priority in São Paulo since the beginning, as is shown by the original design of the sanitary infrastructure. Thus, in 1892 the state government had created four new specialized laboratories including a chemical laboratory for food analysis, and a foreign expert, the French chemist Marcel Lachaud, was hired as a technical director. The following year Lachaud delivered a thorough survey of the quality of foodstuffs in the city of São Paulo, which also indicated the need for systematic regulation (Antunes et al., 1992; Motta Jr., 1893). Nevertheless, the new laboratory fell into the doldrums in the following years; the cause was the mentioned public health reform of 1893, which again delegated responsibility for food control to the municipalities and severely limited the scope of the state laboratory's activities (São Paulo, 4 set. 1893, artigo 2ºd). And unlike its director, who in 1895 requested modification of the legislation to continue the campaign against deteriorated and counterfeit foods (Motta Jr., 1895), the municipal government of São Paulo simply ignored its new responsibilities (São Paulo, 23 jan. 1895, artigo 1º, parágrafo 3º). The first signs of change are found in two municipal laws from 1904 and 1906 which gave the mayor powers to make agreements with the state government or to organize, with the technical support of the newly founded Pasteur Institute of São Paulo, an inspection service for food sold in the city (São Paulo, 20 abr. 1904, 9 jun. 1906). This was also followed a year later by the approval of a food law which, for the first time in Brazil, set concrete

standards for the ingredients and the composition of a series of foods and expressly banned certain adulteration practices (São Paulo, 21 fev. 1907). But these legislative efforts had no effect, since the municipal council was not in a position to provide the resources necessary for such cooperation, supposedly because of the precarious financial situation (Prado, 1908).

Despite the city's inactivity, the state government also saw no reason for decisive intervention, even though the most important health problems had already been solved quite some time ago. So instead of an effective solution, the state public health reforms of 1906 and 1911 created an unclear legal situation which simultaneously attributed the responsibility for food supervision to both the municipal and state spheres (São Paulo, 27 jan. 1906, art. 22, parágrafo 11; 14 nov. 1911, art. 3º, parágrafo 3º e art. 29, parágrafo 9º). Apparently, the competing jurisdictions meant that neither side felt responsible, leaving the authorities unable to respond effectively to the exacerbating food crisis and the spread of fraudulent practices that began with World War I. In a report from 1916, the São Paulo state secretary of the interior admitted frankly that "at this time, the Health Service [is] not equipped to organize a food inspection campaign. The Laboratory has neither the facilities nor the elements capable of resolving this issue which is so imperative and of such importance to public health" (Relatório... 1916, p.107).

Lessons from the crisis: standardization and institutionalization

Although the initial conditions were as unfavorable as they were in São Paulo, at exactly the same time the institutional situation in Rio de Janeiro showed surprising changes. In March 1915 a new municipal laboratory for food analysis was inaugurated in the federal capital, which according to the mayor corresponded to "all that is most modern and perfect" in terms of technology and facilities (Mensagem..., abr. 1915, p.12). And for the new body to reach its full effectiveness, the municipal director of public health Paulino Werneck (1860-1930) shortly afterward instructed his health inspectors to intensify their control of food trade in the city (Pela saúde, 17 nov. 1915). Still, it could not yet be said that the counterfeits occurring every day were being repressed. This time the fault could mainly be attributed to the vague legal situation and the complicated service instructions. According to the *Correio da Manhã* (Regulamento..., 18 jul. 1918), for example, the analysis of alcoholic beverages required seizure of samples of excessive amounts up to 15 liters, which in practice made the inspectors' work impossible. Another factor that prevented regular functioning of the service was the lack of comprehensive food legislation that would provide clear guidelines for production and sale as well as for the everyday practice of the laboratory. Specifically, the guidelines for food examination were limited to a number of prohibited toxic substances and distinction between foods that were "good," "altered" by natural processes, and intentionally "adulterated" (harmfully or not). The exact evaluation of each case, however, was left to the laboratory, with legal consequences that were sometimes unpredictable (Rio de Janeiro, 15 out. 1908, art. 6º, 36). Therefore, in a public hearing in 1915, the laboratory's chief chemist Diocleciano Pegado (1916) asked the following questions: How should the laboratory deal with alcoholic beverages declared "wine" that were not made from grapes but from other fruits? What quantity of berries did a currant syrup need to be considered pure? And how

could Brazilian law maintain the categorical ban on artificial additives proven to be harmless, which in more advanced countries were already seen as legitimate innovations of the modern food industry?

Even today the answers to these questions can lead to controversy, showing how the definition of quality in the area of food depends on subjective concepts and expectations, which since the mid-nineteenth century were undergoing profound transformations through the processes of technification and industrialization of food production in general. Consequently, legal regulation of food appeared as a highly contested subject which has been described in recent literature as a complex social bargaining process in which the opinions of "experts" (whether they were "independent" chemists or technical advisers from large food industries) often played a decisive role, to the detriment of consumers (Atkins, 2013).

In Brazil, the legal standardization of the food market began with the federal health reform undertaken in 1920 by Carlos Chagas (1879-1934), who at that time was the country's director of health services. The new public health law contained 176 articles devoted exclusively to the food trade, and in them defined for the first time not only the ingredients and composition of widely consumed food products, but also the production and storage conditions for each sector (Brasil, 31 dez. 1923, art. 658-834). Little is known about how this list of norms was prepared or which private interests influenced its compilation. Only its authorship is known; it was prepared by a committee of experts led by the physician Raul Leitão da Cunha (1881-1947), with the participation of five more scientists from the Oswaldo Cruz Institute.³ Public participation was permitted during a period of 45 days after publication of the draft law in the federal government gazette *Diário Oficial*, with suggestions and complaints to be sent to the Ministry of Justice (Ministério de Justiça) (Rodrigues, 1922). Unfortunately, it is no longer possible to reconstruct how this opportunity was utilized by manufacturers and merchants and what suggestions effectively influenced the final design of the regulation. In any case, it is necessary to emphasize the long validity of this first food code, which reigned uninterrupted until after the end of the Estado Novo in 1945 (Rodrigues, 1948).

The 1920 federal food code was a major breakthrough in Brazilian food regulation also because of the accompanying institutional reforms. At the same time as the 1920 health reform, the Congress decided to close the last loopholes for the importation of counterfeit foods by equipping ten of the country's most important seaports with food laboratories (Brasil, 13 jan. 1920). The federal public health reform, in turn, definitively passed responsibility for food control in Rio de Janeiro from the municipal authorities to the federal government. This led to the emergence of the Inspectorate of Foodstuffs (Inspetoria de Fiscalização de Gêneros Alimentícios) under the aegis of the newly-created National Department of Public Health (Departamento Nacional de Saúde Pública, DNSP). The DNSP took over from the municipality not only the food lab but also responsibility for controlling the trade in fresh milk and the municipal slaughterhouse (in two separate sections). The pharmacist Alberto Vieira da Cunha – formerly director of the food inspection committee instituted by Oswaldo Cruz in 1906 – was nominated as its first director. And to make the reforms work effectively. The new Inspectorate received its own staff of specially trained mobile inspectors that complemented the 42 employees of the food laboratory (Brasil, 31 dez. 1923, art. 636).

The institutional developments in São Paulo tend to confirm that the First World War period can actually be considered a turning point in the issue of food regulation in Brazil, although here a definitive solution was only implemented some years later. In the troubled year of 1917, in keeping with the promise made to the strikers, the state government strengthened its jurisdiction in the control of food through a new public health reform and went beyond to determine the construction of a grand building for a new food laboratory, which was completed in 1920. In that same year a special division was also created to inspect food sales, although it had difficulties meeting its responsibilities because of lack of manpower (Relatório..., 1921; Morena, 1942; São Paulo, 29 dez. 1917, art. 98 e s.). The final deployment of a food control service in São Paulo only occurred with the 1925 public health reform by the new health service director Geraldo Horácio de Paula Souza (1889-1951). Inspired by a doctoral internship at the School of Public Health at Johns Hopkins University in Baltimore (an international reference in the field of health sciences), Paula Souza implemented the concept of comprehensive preventive medicine for the first time in Brazil (Mascarenhas, 1963; Campos, 2002), which among other aspects included food hygiene (Paula Souza, Morena, 1924). But it is noteworthy that the organ created for this purpose, the Inspectorate of Public Food Policing (Inspetoria de Policiamento da Alimentação Pública) was guided in many ways by the federal model: with 198 articles, São Paulo's food code was a slightly modified and broadened version of the federal law, while the administrative apparatus was also designed to be independent, bringing together laboratory work and itinerant inspections. In addition, a team of 97 technicians and staff emphasized the state's new willingness to intervene in a decided manner (São Paulo, 11 jul. 1925, art. 29, 169-366).

Final considerations: the “golden age” of food control

The trajectory of institutions and legal arrangements represents only the most visible aspect of a far more complex and comprehensive story, the in-depth study of which certainly would serve to more precisely illuminate the dynamics between science, civil society actors, and the decisions made by the state in the area of food controls during the First Republic. Yet there is a serious limitation to such studies in the case of Brazil given the precarious situation of the sources, especially the public ones, which as a rule are nothing more than collections of laws and official reports which specifically leave the dynamics of power and underlying social negotiations in the shadows. With regard to the effects of the reforms, the daily press and the first official reports indicate a quick implementation of comprehensive food inspections including all areas of the urban food trade: the street fairs, emporiums and restaurants, as well as the large warehouses in the port of Rio and in the railway stations and the factories and large producers of drinks and foodstuffs. For the first time in the two cities mandatory standards for the food trade were implemented, which had an evident benefit for the urban consumer regardless of social status. Consequently, starting in January 1921, the *Correio da Manhã* (Parece..., 16 jan. 1921; Departamento..., 2 fev. 1921) repeatedly reported intense inspection and control activities undertaken by the new authority in a number of districts in the capital. And in São Paulo, the first report of the Inspectorate of Public Food Policing in 1926 boasted no less than 44,064 mobile inspections in wholesale

and retail establishments, factories, and restaurants, while the number of chemical analyses done in the lab soared from 1,200 in 1924 to over 3,600 two years later (Campos, 1926).

In the broad view, it seems justified to conclude that the regulation of food as a secondary task (compared to the fight against contagious diseases) required an "external shock" like the food crisis of First World War and the public pressure that followed for the state to take action and assume its regulatory responsibility. In the national panorama, it is important to note that the food analysis lab at DNSP, alongside the Oswaldo Cruz Institute, was once again a federal health institution that was able to establish a national standard. In a retrospective written in the late 1950s, the pharmacist and former employee of the laboratory Oswaldo de Almeida Costa (1959) stated that in the 1920s the federal laboratory (with its modern facilities, qualified staff, and library which was the best of its kind in Brazil) effectively experienced a bright moment, becoming not only a national reference in matters of food hygiene, but also a required stop for prominent foreign scientists who visited Brazil, including celebrities such as Marie Curie and Albert Einstein. Professionals from all corners of Brazil also came to familiarize themselves with the institution's working methods and expand their knowledge. The chemical directors were asked to guide dissertation projects, and in 1932 the laboratory partnered with the Federal University of Rio de Janeiro to organize the country's first university course in food chemistry, thus making an essential contribution to the academic institutionalization of this new discipline (Albuquerque, 1955).

The historical context of this golden age of food science was the fact that during the 1920s, also in other parts of Brazil, the issue of food monitoring moved to the top of the public health agenda, generating a growing demand for specialized personnel and technical guidance. Still in 1923, federal minister of the interior João Luís Alves (1870-1925) found widespread neglect in most states of the federation with respect to food hygiene. Therefore, he proposed extending federal food regulation to all parts of the country (Diretoria do Interior, 1923), based on agreements between DNSP and state governments according to the rural sanitation model of 1920 federal health reform (Hochman, 1998). Although this proposal never became a reality, during the 1920s many state governments (apparently on their own initiative) took on responsibility for food hygiene, generally using the federal example as a model. In this way, in 1922 the state government of Minas Gerais sent a chemist to the federal Inspectorate to acquire practical knowledge of food inspection and organize a similar service in Belo Horizonte, a goal that became reality with the large public health reforms in Minas Gerais in 1927 (Naveira, 1996). And two years earlier, even the state of Bahia, which was notoriously underdeveloped during the First Republic with regard to health policies, included in its first proper health reform of 1925 rules and infrastructure for food regulation following the 1920 federal model (Calmon, 1926; Santos, 1998).

NOTES

¹ The war ended in November 1918 before the planned dispatch of a military expeditionary force to support the Allies on the Western front; consequently, Brazil's participation in First World War was restricted to minor maritime operations and a medical aid mission.

² In this and other citations of texts from Portuguese, a free translation has been provided.

³ The pharmacist Alberto Vieira da Cunha also was part of the commission, along with the chemical engineer José Carneiro Felipe (1886-1951), the bacteriologist José Gomes de Faria (1887-1962), and the physicians Eurico Villela (1883-1962) and Alberto de Paula Rodrigues (1882-1960).

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