CSP CADERNOS DE SAÚDE PÚBLICA
REPORTS IN PUBLIC HEALTH

ESPAÇO TEMÁTICO: POLÍTICA, ECONOMIA E SAÚDE – LIÇÕES DA COVID-19
THEMATIC SECTION: POLITICS, ECONOMICS AND HEALTH – LESSONS FROM COVID-19

Fiscal austerity and its effects on the Brazilian Health Economic-Industrial Complex in the context of the COVID-19 pandemic

Austeridade fiscal e seus efeitos no Complexo Econômico-Industrial da Saúde no contexto da pandemia da COVID-19

La austeridad fiscal y sus efectos sobre el Complejo Económico-Industrial de la Salud en Brasil en el contexto de la pandemia de COVID-19

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doi: 10.1590/0102-311X00100521

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Introduction

The structuring of a robust Health Economic-Industrial Complex (HEIC) in Brazil, capable of reducing the country's technological dependence, requires inter-sector collaboration with the presence of financing in different spheres (industrial development, health, education, research and development, etc.).

The late 1990s were a milestone in Brazil with the beginning of a series of policies that sought closer relations between health policy, science and technology policy, and industrial development policy, with the HEIC [1,2] treated as a structural component of health policy and health as an important segment of economic development. However, the set of efforts failed to lead effectively to a reduction in Brazil's external dependence in health. This situation has been further aggravated since 2016, when the country began to adopt fiscal austerity policies and promote the public sector's dismantlement.

The Brazilian Unified National Health System (SUS), created under the 1988 *Federal Constitution* and a central component of the HEIC, has been the victim of underfinancing since its origin. Founded in the context of the state's downsizing in the central economies in response to recommendations in this same direction for Latin America, better known as the "Washington Consensus", whose maxim was to reduce the State's role through bitter measures. Cuts in public spending to reduce the public debt, alongside fiscal reform focused on reducing corporate taxes, were the crux of this proposal. Added to this was the private sector's expansion in all areas via privatizations and trade and economic opening, aimed at reducing protectionism to expand the economies' openness to foreign investment [3,4].

The above-mentioned environment is distinct from that of universal public systems created in moments of economic expansion, extensive State participation, and availability of long-term financing, as in Canada in 1947 [5] and the United Kingdom (National Health System – NHS) in 1948 [6]. Insufficient public financing for reducing technological dependence was also present in industrial sectors, education, and science and technology.

In the context of the COVID-19 pandemic, Brazil's technological dependence has led to shortages of ventilators, essential medicines used to intubate patients, vaccines, and various other essential inputs for dealing with the pandemic.

The contradiction between the redistributive model laid out in the 1988 *Federal Constitution* and the low levels of public spending in health, including the production of goods and inputs, was exacerbated by *Constitutional Amendment n. 95/2016* [7], which froze public spending for 20 years. The amendment and other measures such as social security and labor reforms and more recently *Constitutional Amendment n. 109/2021* [8] are hegemonic on the current administration's agenda and have downsized the entire public system.

The current article reflects briefly on the relationship between the fiscal austerity policies, their effects on health activities and services, and the role of the SUS as provided in *Law n. 8,080/1990* [9] in the formulation of health policy to promote, in the economic and social fields, universal and equitable access at all levels of care and the formulation of policies for medicines, equipment, immunobiological products, and other essential health inputs, as well as participation in their production. The article further discusses how this political option for an austerity policy focused on reducing public spending can jeopardize the universal and equitable right to health.

Technological dependence and access to health products

The COVID-19 pandemic, the most serious global crisis since the 1930s, has clearly shown that scientific, technological, and industrial capacity to meet health needs, as well as health systems with adequate infrastructure and financing, are essential for sustaining life. The crisis has also highlighted the need to increase social spending, implemented in most of the central countries and in some countries of Latin America [10].

With the spread of the novel coronavirus throughout the world, nonpharmacological measures have proven crucial for controlling the pandemic. Mask-wearing, social distancing, cancellation of public events, closing of schools and companies, and other measures have been discouraged by the Brazilian federal government. Thus, access to ventilators, drugs for intubation, oxygen, inputs such as surgical masks and gloves, diagnostic tests, and other technologies like vaccines become even more important for reducing morbidity and mortality from the disease. However, the shortage of such inputs revealed how the country's external technological dependence in health products left the population vulnerable [11].

This is a worrisome trend in a context of deepening internationalization and concentration of capital. According to the Global Innovation Index [12], ten countries concentrate 88% of all health-related patents (United States, China, Japan, South Korea, Germany, Switzerland, France, United Kingdom, Netherlands, and Israel). The situation raises challenges for Brazil in the organization and development of an industrial and technological base in health, especially with domestic capital, particularly in the context of cuts in public funding in this field, with the dismantling of inter-sector policies, important in the sphere of the Brazilian Development Bank (BNDES) and the Brazilian Ministries of Health, Science and Technology, Education, and the Economy. This further aggravates setbacks to the efforts in the early 2000s to build local capacities, whether in public institutions through science and technology transfers, such as with the Oswaldo Cruz Foundation (Fiocruz) [13], or in private organizations with domestic capital.

Despite the success in industrial capacity and diversification, Brazil's public laboratories still depend largely on the purchase of active pharmaceutical ingredients, particularly from China and India, which has led to repeated interruptions in the supply of inputs for vaccine production by the Butatan Institute and Fiocruz.

The fight against the pandemic mobilizes "*a high-complexity industrial, economic, and innovation system that involves various industries and services and the organization of health systems as interdependent dimensions*" [11] (p. 27). In the Brazilian case, these two dimensions are weakened. Since the process involves the organization and necessary resources for the provision of goods and services for health, we are faced with a SUS plagued by acute-on-chronic underfinancing, expressed as a budget that has dropped increasingly closer to the constitutionally mandated minimum.

From underfunding to budget freezes for the SUS

According to estimates, due to *Constitutional Amendment n. 95/2016* [7], from 2018 to 2020 (not counting exceptional funds for COVID-19), the SUS lost BRL 22.5 billion (USD 4.5 billion) in federal funds [14]. If the country maintains *Constitutional Amendment n. 95/2016* [7], which only provides for the adjustment by inflation for public spending in the subsequent fiscal year, there will be a reduction in public spending on health as a proportion of Gross Domestic Product (GDP) and of total public spending, already one of the lowest in the world, even though Brazil has a universal public health system [15].

Due to the nature of the current crisis, various governments in the world are wagering on increased public spending. Even famously orthodox institutions such as the World Bank recommend that countries expand their social spending and adopt measures to support their most vulnerable citizens. Such measures will reduce but not eliminate the effects of the crisis.

Nevertheless, in Brazil, austerity policies have been expanded and have heavily affected both public health services and the research, development, and innovation sectors, which have had their budgets drastically reduced. This has seriously compromised Brazil's situation in the pandemic. The procurement, development, and production of vaccines is a key example of external technological dependence associated with mismanagement of the pandemic, the result of dismantlement of policies for national autonomy in the production of health products, disorganization of the National Immunization Program (PNI), and underfinancing of health and science, technology, and innovation policies.

The lack of budget planning in the Brazilian Ministry of Health to deal with SARS-CoV-2 in 2021 included the failure to earmark specific funds for the pandemic in the initial version of the budget submitted to Congress, besides founds not spending in 2020 for the purchase of vaccines in the amount of BRL 21.6 billion (around USD 4 billion) arising from extraordinary credits, reopened in 2021 for this purpose. The National Health Council collected nearly 600,000 signatures defending a budget of at least BRL 168.7 billion (USD 33.7 billion) in 2021, not counting the BRL 20 billion for vaccines. However, the amount of expenditure on public health actions and services approved in the Annual Budget Law (LOA) for 2021 was BRL 131.2 billion (nearly USD 25 billion) [16]. Meanwhile, Brazilians are suffocating while the country reached 500,000 COVID-19 deaths on June 19, 2021.

Final remarks

The link between various productive segments in health, the drastic reduction in funds for research and development and education, and the funding cuts in the SUS are among the factors that have aggravated the COVID-19 pandemic in Brazil. This emphasizes that the adoption of austerity policies does not sustain the development of a HEIC that guarantees a minimum of industrial autonomy for the country or the capacity to supply public healthcare services to the population.

The case of vaccines evidenced these two perspectives. The partnerships between the Butantan Institute and Sinovac (China) and between Fiocruz and Oxford University-AstraZeneca (United Kingdom) were jeopardized by problems involving Brazilian diplomacy with the countries supplying active pharmaceutical ingredients. This undermined Brazil's principal strategy, focused on technology transfers via public laboratories [17], not to mention that Brazil turned down offers of vaccines from other companies and from the World Health Organization facility. Meanwhile, the Ministry of Health submitted a budget for 2021 that considered the pandemic extinct and that ignored the suppressed and growing demands for health services.

Even the countries that invested in the development and production of goods such as vaccines have not guaranteed their equitable distribution. As Mazzucato [18] points out, "*to create safe and effective vaccines and to create equitable vaccination programs are two different things*". It is essential to establish detailed public-private partnerships, oriented towards solving relevant social issues and guaranteeing innovations that are both effective and have a social purpose. That is, the combination of productive logic and social logic requires planning and massive public investments. This becomes impossible with the austerity policies adopted since 2016, which promote funding cuts both in the SUS, compromising its survival, and the other segments of the HEIC and public services in general. The arguments adopted by fiscal austerity advocates have been deconstructed. Studies and countries have shown that

there is room to expand public spending, but Brazil's current administration continues to defend the minimum State [19]. The tragedy Brazilians are witnessing shows the consequences of this choice.

Contributors

E. S. Aragão wrote and revised the text based on the data and document collection and analysis in collaboration with the co-author. F. R. Funcia collected the data and wrote and revised the text. Both approved the final version for publication.

Additional informations

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Submitted on 19/Apr/2021
Final version resubmitted on 21/Jun/2021
Approved on 25/Jun/2021