

# We are IntechOpen, the world's leading publisher of Open Access books Built by scientists, for scientists

6,400

Open access books available

174,000

International authors and editors

190M

Downloads

Our authors are among the

154

Countries delivered to

TOP 1%

most cited scientists

12.2%

Contributors from top 500 universities



WEB OF SCIENCE™

Selection of our books indexed in the Book Citation Index  
in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?  
Contact [book.department@intechopen.com](mailto:book.department@intechopen.com)

Numbers displayed above are based on latest data collected.  
For more information visit [www.intechopen.com](http://www.intechopen.com)



## Chapter

# Breast Cancer in Brazil: Social Conditions and Access to Health Care

*Mônica de Castro Maia Senna, Thaislayne Nunes de Oliveira and Debora Louzada Carvalho*

## Abstract

Breast cancer is the most predominant type among Brazilian women, ranking second position within the causes of mortality in the female population. According to the National Cancer Institute (INCA) estimates, for each year of the triennium 2023–2025, 73.610 new cases are expected. Although it is not subject to primary prevention, breast cancer tends to have a satisfactory prognosis and greater chances of cure if identified early. The high mortality rates indicate, however, that access to early diagnosis and to treatments is a flawed aspect of the country. The chapter addresses the main social conditions that affect the high rates of morbidity and mortality, emphasizing aspects both related to the provision of health care services and some social characteristics of women that mark the inequalities which make health care difficult. It also discusses aspects related to health policies and access barriers toward breast cancer control.

**Keywords:** breast cancer, social conditions, access to health, health care

## 1. Introduction

Breast cancer is currently the most common female cancer type in the world [1]. According to the International Agency for Research on Cancer [2] in 2020, there were more than 2.26 million new cases of breast cancer and almost 685,000 deaths from this cancer type worldwide. It means that breast cancer accounted for more than 10% of new cancer cases overall and it was the main cause of cancer death in women, corresponding to almost 7% of all cancer deaths in that year.

There is not only a single cause for the incidence of breast cancer, although genetic, behavioral aspects (such as excessive alcohol consumption), and populational aging are related to a greater predisposition to the disease. Thus, differently from other types of neoplasms, breast cancer is not subject to primary prevention [3, 4]. Nevertheless, the early identification of the disease and adequate access to treatment are admittedly important for better prognosis and higher chances of cure [2] providing a secondary level of prevention under the terms of Leavell and Clark [3].

Differentials in mortality by breast cancer among women from low and middle-income countries, express the inequities related to access to health care, compared to the ones from high-income countries, as indicated by the IARC [5], showing the deep imbrications of the health social determinants for the course of the disease.

The analysis by Pinho and Coutinho [6] points out that the incidence of breast cancer cases is more present in poor countries. In rich countries, such as The United States, Canada, United Kingdom, Netherlands, Denmark, and Norway, although the incidence of breast cancer is high and growing, the mortality number shows a decrease, referring to the investment in screening, prevention, and early detection of the illness. Data provided by the All Together Against Cancer (Todos Juntos Contra o Cancer) movement, state that poor people have six times more chances of dying after oncological surgery. The institution has presented the results of a survey made in 82 countries and noticed that the tumor location can raise the mortality number. In order to make comparative purposes, it is necessary to consider the singularities of each country, both in the predicted health models and in the strategies that lead to cancer control.

Baquet and Commiskey [7] indicate that there are racial differences for women in the United States in relation to incidences, mortality, and survival rates of breast carcinoma. They also point out that social and economic factors inside racial/ethnic groups can be considered risk factors, not only for cancer mortality and survival but also as determinants of incident rates. Gorey et al. [8] compare diagnosed women with mammary neoplasm in two different locations; one in Canada and the other in the United States, both with a low socioeconomic status population. It was identified that in Canada, the survival rate is 15 years higher than in the United States. The authors point out that this difference can be related to greater access to health services in Canada, resulting in a prolonged survival time.

Van Maaren et al. [9] identified connections between the socioeconomic status and survival of patients with breast cancer to be more pronounced among young patients in Netherlands. It is also enhanced that the risk of recurrence in 10 years was lower in the strata with higher purchasing power, indicating that the risk factors for breast cancer, in adherence to adjuvant treatment and recurrent treatment can possibly play an important role in this association between socioeconomic level and a higher survival prognosis.

In Norway, a country with universal health care assistance and national treatment guidelines, it was observed that the specific survival of young patients with breast cancer has improved, likely due to advances in diagnosis and treatment. However, it was noticed that survival highly increased in patients with higher income and education, but there was little survival gain for the ones with low education and income. In this respect, Trewin et al. [10] point out how important socioeconomic status is for the specific survival of young patients with breast cancer, even in countries with universal medical assistance.

In Brazil, a country marked by deep social inequalities, breast cancer remains with very high incidence and mortality rates. For the triennium 2023–2025, 73.610 new cases of breast cancer are estimated each year, and an age-adjusted mortality rate is calculated by the population in the order of 14.23 deaths per 100,000 women in 2018 [1, 11]. Currently, breast cancer is the type of cancer that presents the highest number of deaths among women and the second leading cause of death in the Brazilian female population.

Given this situation, the chapter addresses some of the main social conditions that have contributed to the persistence of high mortality rates from breast cancer in

Brazil. It is based on the understanding that barriers to accessing quality health services make it difficult to diagnose and treat in a timely manner, with impacts on the quality of life and the chances of cure and survival of women affected by the illness.

It should be noted that access barriers are understood as characteristics that may obstruct access and use of health services by potential users, as proposed by Travassos and De Castro [12]. The authors indicate that the mere service offer does not guarantee access to it and point out that geographic, financial, organizational, and informational barriers, among others, directly interfere with facilitating or hindering healthcare access. Based on the understanding that social inequalities in health conditions and access to health networks are a direct expression of the social structure in which we live, Travassos and De Castro [12] state that even if there are changes in the characteristics of the health system that alter significantly the social inequalities in access and use of health services, these, by themselves, are not capable of intervening in health conditions.

From this perspective, the focus given to the issue of breast cancer in this chapter values two central axes. The first one concerns social inequalities that affect the process of illness and the search for health services, particularly, those aspects related to the female condition and socioeconomic factors. The second axis considers the way in which health services are organized, which raises the need to also take into account the trajectory of public policy aimed specifically at cancer control in the country. The considerations made in the chapter were based on bibliographic research, a documental survey, and analysis of secondary data.

## **2. Breast cancer as a social process: a gender perspective**

Studies such as Gorey's [8] point to a correlation between the women with breast cancer survival rate and socioeconomic conditions. Although the incidence of breast cancer affects women from different social classes, the prognosis differs between social strata, with higher mortality among poorer women. In this sense, among the social factors associated with breast cancer mortality are poverty, low education, and lack or difficulties in accessing health services.

Albrecht et al. [13] identified the association between a low level of education and an advanced stage of breast cancer, pointing out that women with less education are more prone to late diagnosis compared to those in strata with higher income and higher levels of education. Similarly, when investigating the association between race/ethnicity and 10-year survival with breast cancer, Nogueira et al. [14], concluded that there is a racial disparity in breast cancer survival, to the disadvantage of black women, who are also generally poorer.

Health conditions are directly related to the inequities existing in the capitalist system, which affect social groups in different ways, according to their insertion in the market. Thus, "people in disadvantaged social conditions seek [health] services when their health status is most severe and they receive care in services less suited to their needs" [12]. It is worth pointing out that Brazil is characterized by immense social inequalities, largely associated with its historical formation marked by slavery and by its subordinate and peripheral insertion in global capitalism.

A study conducted by the Brazilian Institute of Geography and Statistics indicated that in 2018 the average monthly income from work of the richest 1% of the population was 34 times higher than that of the poorest half of the population, and the Gini index was 0.542 [15]. The social inequalities are also expressed in terms of

race/ethnicity: blacks are the ones that comprise 75% of the population in the country's extreme poverty situation, being 72% slum dwellers and 64% unemployed [16], in addition to being the main victims of violence and violation of rights. Brazil also presents high levels of gender wage inequality; women receiving lower salaries than men, occupying few leadership positions, working in multiple shifts, and suffering various forms of violence and harassment.

In this sense, the gender approach is relevant for understanding the phenomenon of breast cancer as a social process. The concept of gender is an analytical category historically and socially constructed from feminist struggles. It expresses a primary form of power and domination in social relations constitution, which is made from the perceived differences between the sexes [17]. At the same time, thanks especially to the contribution of black feminists and the concept of intersectionality proposed by them [18], it is important to recognize that these relations of power and domination are intertwined with others, such as race and social class, as structuring social reality.

A cross-sectional study to identify the sociodemographic profiles of women diagnosed as breast cancer from the hospital in a state in Brazil records 715 patients undergoing treatment between 2010 and 2013. The cluster analysis was used to delineate the profiles from the variables: age, color of the skin, education, and cost of treatment. The association between profiles and intervals was investigated using multinomial logistic regression, being observed even after winning barriers to access to the oncology unit profiles of social vulnerability had a longer wait for treatment [19].

Therefore, it should be considered that the family role permanence and naturalization of caring for children and household chores put women with cancer in a position of what we call "disadvantage," especially when there is a change from their condition of caregiver to someone who needs to be cared for [20]. Under the same perspective, Nogueira and Silva [21] emphasize that the woman who is the head of the family, with no support network, has little or no social protection, deals with objective barriers that make breast cancer prevention, detection, and treatment difficult or even impossible.

In a study carried out in Brazil with women who access public health services, it was identified that the probability of being alive was lower for those in advanced stages. However, the authors point out that studies have shown disparities in the survival of women with breast cancer in relation to socioeconomic status. In this sense, women with lower socioeconomic status have worse survival rates. It is also reinforced that the difficulty of accessing the diagnosis increases the probability of death from breast cancer [22].

The close correlation between the illness process and living conditions, the precariousness of work relations, and the absence of social protection constitute barriers to access and adherence to treatment, which has been expressed in the identification of the disease in its most advanced stages and has increased mortality. Thus, an element to be considered in this aspect is what Carloto and Gomes [23] understands as the "feminization of poverty." The authors resort to the notion of social and technical division of labor to identify its organization between men and women in the social structure, in such a way that an arrangement of skills and attributions are associated with the female gender and another arrangement of functions granted to the male gender are socially configured.

Another study points out that low education was identified as a risk factor for the increased possibility of mortality even in the early stages of breast cancer [24]. In the sexual division of labor, women occupy subordinate and socially discredited roles. They are limited in terms of their participation in the labor market due to the roles

they are assigned in care and social reproduction. Such inequalities are naturalized by society and disregard the conflicts that permeate the construction of women in their condition as subjects. At the same time, that condition masks the difficulties faced by women not only in their socialization processes but also in their interpersonal relationships, which becomes worse with illness.

Women are submitted daily to double and/or triple shifts. It is sure that the responsibility for household chores falls on them, making gender asymmetries evident. Women are often expected to care for others and paid work. This is associated with the low standard of public social protection in Brazil and the responsibility for the care is left almost exclusively to the family itself, and within the family, more specifically to the women [25].

Portella [20] draws attention to the fact that when a woman becomes ill, the historically constructed place of caregiver undergoes changes, impacting both her social function, her body image, and interpersonal relationships as well. The author states that aspects related to how women deal with their bodies and with socially constructed conceptions of care, influence how they choose to care for themselves.

The author also points out that the absence of public social support mechanisms that cover the care function performed by women, especially the poorest ones, ends up hindering and influencing access to exams and treatments, contributing to advanced staging and, therefore, lower chances of a satisfactory prognosis, recovery from the illness, and real chances of cure.

### **3. Breast cancer, social policies, and health care services**

The health system in Brazil presents a hybrid format, consisting of a public and universal subsystem (Sistema Único de Saúde—SUS) and a private subsystem, in addition to its own regime for military personnel. Instituted by the 1988 Federal Constitution, which recognized health as a universal right and a responsibility of the State, SUS offers a set of actions to the entire Brazilian population that range from those related to prevention and health promotion to highly complex procedures, such as transplants, for example. It is, therefore, a group of actions that cover Primary Health Care, medium and high complexity services. It also adopts a model of cooperative federalism in which the Union, states, and municipalities have shared responsibilities for the management, financing, and provision of health actions.

Thus, the SUS is composed of a network of public, philanthropic, and private services contracted with public resources from fiscal taxes. The private subsystem, on the other hand, is mostly constituted by health plans and insurance, financed directly by the insured themselves (out of pocket) or by the employing companies, in part or in full. It is evident that the hybrid character of the Brazilian health system expresses its enormous segmentation and inequalities in access to services. According to Barros and Sousa [26], despite being recognized as a universal and equal right, the SUS still faces inequities resulting from “factors such as misinformation, associated with differences in education, or even deformation in certain public policies, in some of which privileges and discrimination are still present.” The authors also point out the low percentage of public spending on health, especially if compared to other universal health systems. Data compiled by IBGE, for the year 2019, show that public spending corresponded to only 3.8% of GDP, compared to 5.8% of private spending. In contrast, more than 70% of the Brazilian population, or about 150 million people, depend exclusively on the SUS [27].

In the case of private health insurance, the same IBGE [27] survey indicated that 26% of the population had a health plan for medical care. The coverage of these health plans is concentrated in urban areas, especially in the state capitals and in the Southeast and South regions of the country. The data indicate that in Brazil, there are differentials in relation to education, income per capita, and race, with greater coverage in population segments with higher education and income and among the white population. Liedke et al. carried out a study looking for differences between women diagnosed with breast cancer who have health insurance and those who access public services in Brazil. The authors identified that patients with public health coverage had more advanced diseases at diagnosis [28].

In relation to breast cancer care, the first health measures date back to the 1920s, provided by philanthropic institutions. At that time, the number of diagnosed cancer cases in Brazil was low, being the highest disease incidence and mortality rates in the country related to the group of infectious-parasitic diseases. The governmental actions to control cancer were punctual, in general, associated with personal initiatives or those of medical professionals [29]. Inflections in this model began to take shape in the 1940s, with the implementation of the National Cancer Service, largely the result of the mobilization of the Cancer Leagues organized under the leadership of medical professionals. According to Teixeira [29], the implementation of this service made it possible for the breast cancer issue to enter the Brazilian public health agenda, with the Central Institute and the National Campaign against Cancer as its bases for action. Regarding breast cancer specifically, the role played by the Social Pioneers Foundation, created in 1957 with the purpose of providing medical and educational assistance to the poor population, deserves to be highlighted. In association with this foundation, a cancerology hospital unit was created to provide outpatient care for the prevention and early detection of gynecological and breast cancer and to constitute, at the same time, a research center dedicated to the prevention of female cancer. However, following the hegemonic medical model in the country, the care provided was characterized by the predominance of individual actions, curative nature, and centered on hospital care [30].

Breast cancer control achieved greater visibility in Brazil since the 1980s when the country was undergoing important social, economic, and political reforms associated with the context of re-democratization after two decades of an authoritarian political regime. Such visibility can be credited to the recognition of the increasing number of cases and deaths from breast cancer in the country. Two government initiatives are worth mentioning here. One is the comprehensive attention to women's health program, implemented in 1983, which innovates by expanding the attention to women's health beyond the pregnancy-puerperal cycle and introducing the concept of comprehensiveness. The other prominent initiative is the creation, in 1986, of the Oncology Program (Pro-Onco), from the National Cancer Institute, which arose as a technical-administrative structure of the extinct National Campaign to Fight Cancer [30].

Next, we had the consolidation of the SUS in the 194 Article of the 1988 Federal Constitution. In addition, the beginning of the 1990s watched the legislation implementation that deals with the institutionalization of SUS, Laws No. 8.080/90 and No. 8.142/90. In the late 1990s, under the SUS structure, the *Viva Mulher* Program was implemented as the first national public health initiative aimed specifically at the control of female cancers, especially breast cancer. The program objective was to reduce mortality and the physical, psychological and social repercussions of cervical and breast cancer by offering services for prevention and detection at the early stages of

the disease and for the treatment and rehabilitation of women. However, Porto et al. [31] explain that despite the progress made by this program, very little has effectively advanced in terms of health care.

The scenario changed in the 2000s. The first specific national policy for cancer in Brazil was instituted in 2005, in line with the parameters recommended by the World Health Organization, in view of the high rates of new cases and mortality from the illness worldwide. The National Policy for Oncological Care (PNAO) affirmed cancer as a public health issue and structured the oncological care services network to be implemented in a decentralized manner in the states and municipalities, in accordance with guidelines established by SUS [32]. In the same year, the Action Plan for the Control of Cervical and Breast Cancer (2005–2007) was drawn up, based on six strategic guidelines, namely: increase in the coverage of the target population; quality assurance; strengthening of the information system; development of training; social mobilization strategy; and advancement of research. According to Oliveira [32], at this moment, the greatest focus is given to early detection, for which indicators and goals for mammography and screening of the disease are agreed upon by the different federated entities. In the wake of these measures, other initiatives were adopted to encourage the early detection of breast cancer. Among them, we can cite the publication of Law No. 11.664/2008, which aims to ensure mammograms for women over 40 years, as well as referral to services of greater complexity for diagnostic complementation and treatment, when necessary. Later, some other legislations were created, including the structuring of specific programs and systems, such as the Breast Cancer Information System (SISMAMA), and the Cancer Information System (SISCAN), among others, through which they implied changes in the access to information on prevention and focus on the control of the disease in a positive way, especially in the surveillance actions of the disease.

Moreover, the discussion of breast malignancy was reaffirmed through the action plan launched in 2011, the National Plan for the Diagnosis and Treatment of Cervical and Breast Cancer, which aimed to increase mammographic exams, especially to intensify prevention and assistance to women. Then, the National Program of Quality in Mammography (PNQM) was instituted. And, later, the publication of Ordinance No. 189/2014 established financial incentives to fund referral services for breast cancer diagnosis. These measures are essential for us to think about the priority of cancer through sensitivity and encouragement of measures to prevent and control the disease.

In this sense, there is a need to discuss health prevention and promotion and the relevance of social determinants and their impacts on the number of new cases in Brazil and worldwide is evident. Significant advances have been identified since the early 2000s; Castro [33] elucidates the change in the public policy scenario in this period, starting with the government of then—President Luiz Inácio Lula da Silva. There is evidence of an expansion of social policies, enabling, a broadening of the mechanism of social protection and promotion. It is noteworthy that through international pressure, the WHO signatory countries were directed to intensify measures to prevent and control cancer.

It should be noted that, in 2013, Brazil published Ordinance No. 874/2013 establishing the National Policy for Cancer Prevention and Control in the Health Care Network for People with Chronic Diseases within the SUS, replacing the previous policy of 2005. With this, it is identified an intensification in the creation of strategic measures that should focus on the risks and aggravations of the disease. With research on the documentary collection shown by INCA, it is clear that most of these sources



allocated for cancer consist of diagnosis, but there is a high expenditure on the treatment that, being of high complexity, requires the use of imported technologies [34].

Despite the undeniable advances those mentioned measures represent, the mortality rate for breast cancer among Brazilian women remains high and growing. Since the SUS creation, there has been a significant investment in Primary Health Care, expanding the health services supplies. Primary Care is responsible for preventive clinical examinations. However, diagnostic confirmation, which requires access to mammography, ultrasound, and biopsy tests, is performed at other care levels, which is a bottleneck in the SUS. The delay in scheduling these diagnostic tests and the low quality of the images are some of the factors that end up delaying the diagnosis. And once the diagnosis is confirmed, the woman with cancer faces new difficulties, now to access treatment in a timely manner. These aspects end up contributing to access to services when the breast cancer stage is already advanced, thus reducing the chances of cure.

The study conducted by Oliveira [32] showed differences in the time taken by women with breast cancer to access diagnosis and treatment between those with and without health insurance, in a disadvantageous condition for the latter. Similarly, Cabral et al. [34] concluded that women in situations of greater social vulnerability had a longer interval between diagnosis and initiation of treatment, regardless of the degree of illness staging.

To address this situation, since 2020, Federal Law No. 13,896/2019, won through the mobilization of civil society organizations, guarantees that the necessary tests to confirm the diagnosis must be performed within a maximum of 30 days, with immediate initiation of treatment.

However, the implementation of this law was faced with the arrival of the COVID-19 pandemic, at which time health actions were primarily focused on pandemic control. A study conducted in two Brazilian states showed that there was a decrease in the number of cancer-diagnosed cases due to several factors such as anxiety, stress, and social isolation associated with the restriction in access to routine tests and prevention for breast cancer diagnosis, imposed by the pandemic [35]. It is noteworthy, that during the COVID-19 pandemic, many services were affected, including oncology services, with restrictions and decreased patient flow.

Benites et al. [36] in a literature review article identified studies that reported the adaptations in breast cancer treatments performed. Considering that the interruption of cancer treatment can generate even more damage, health professionals have created alternatives for its non-interruption, seeking to avoid the patients going to hospitals and staying there for a long period of time.

The research by Mendes [37] calls attention to the “invisible patient,” the one who suffered the most from the health care paralysis for chronic conditions as a side effect of COVID-19, with non-assistance caused by access restrictions or people’s fear of seeking health services. As a result, chronic conditions tend to become unstable and increase in severity, cause deaths, and have a high economic and financial impact on health care systems.

#### **4. Final marks**

In Brazil, social inequalities contribute to result not only to worse health conditions but also to health care services access and use inequalities. The multifaceted profile of the social issue of cancer, closely related to the insertion of these women in

the world, their family and work relationships, is an aspect that undoubtedly hinders adherence to treatment, especially considering that the illness from breast cancer has repercussions in different ways and in different spheres of women's lives and permeates the gender issue.

The double and/or triple working day, the precariousness of work relations, and the context of restrictive social policies amplify the situation of social vulnerability, without minimum protections for their sustenance and that of their families, besides being factors that notoriously hinder adherence to treatment. Besides the clinical issue, breast cancer also comprises implications involving feminine insertion in the scope of work, family, gender relations, and socioeconomic compromising, among others.

In what specifically refers to the health policy, the Brazilian Unified Health System advocates access universalization, comprehensive integrality, social equity, management and provision decentralization, hierarchization of services, and social participation. It is an example of a policy whose effective implementation presupposes the reorganization of health practices and, consequently, the care model transformation and health care services organization. Focusing on comprehensive care, it is necessary to prioritize intersectoral actions articulating the individual aspects present in the social demands of the user and the family, in order to find social answers via public social policies.

In this sense, it is possible to recognize that the Brazilian health model has changed in a positive way with the creation and implementation of the SUS. Indeed, SUS has remodeled the profile of health care provision, especially in decentralizing the health care management toward the states and municipalities.

It is worth mentioning that the policy institutionalization process has not occurred without conflicts and a set of challenges, particularly the guarantee of the comprehensiveness, continuous care, and quality of services offered. Thus, despite recognizing these advances, it is still necessary to identify that there are limits and daily challenges that weaken the consolidation of the SUS in its essence. Including, new challenges continue to reverberate in current days and are unique to this context, especially due to the reality of the service offered along with the pandemic COVID-19.

In this context, illness raises issues that problematize the debate about health as a right, which refers not only to universal health care access, but also to the quality, nature, and viability of these services provided to women for access to diagnosis and treatment. It is understood that the health-disease process is a social product and cancer is no exception to this rule. In this scenario, the barriers to access to health services lead to higher mortality rates, since, as analyzed, timely diagnosis and adequate treatment make it possible to increase the chances of cure and increase survival.

However, the latest estimated numbers of new cases and the number of deaths from breast cancer remain high. It can be seen that the social vulnerability of the population has great relevance not only because of the pathology severity but also because of the mentioned factors' complexity. This complexity is historically present in the daily life of each individual woman and tends to interfere with timely access to diagnosis, treatment, prognosis, and recovery from the illness.

IntechOpen

## Author details

Mônica de Castro Maia Senna<sup>1,2,3</sup>, Thaislayne Nunes de Oliveira<sup>2,4,5</sup>  
and Debora Louzada Carvalho<sup>2,6\*</sup>

1 Public Health, Brazil

2 Department of Social Work, Fluminense Federal University, Niterói, Rio de Janeiro, Brazil

3 CNPq, Brazil

4 Multiprofessional Residency Program in Oncology in University Hospital Antônio Pedro, Brazil


5 Army Central Hospital, Rio de Janeiro, Brazil

6 Cancer Hospital II, National Cancer Institute, Rio de Janeiro, Brazil

\*Address all correspondence to: [louzada.debora@gmail.com](mailto:louzada.debora@gmail.com)

## IntechOpen

---

© 2023 The Author(s). Licensee IntechOpen. This chapter is distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/3.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. 

## References

- [1] Brasil. Instituto Nacional de Câncer José Alencar Gomes da Silva. Estimativa 2023: incidência de câncer no Brasil. Rio de Janeiro: INCA; 2022. Available from: <https://www.gov.br/inca/pt-br/assuntos/cancer/numeros/estimativa>
- [2] Organização Mundial da Saúde. International Agency for Research on Cancer. Breast Cancer. Geneva: WHO; 2020. Available from: <https://www.iarc.who.int/cancer-type/breast-cancer/>
- [3] Leavell HR, Clark EG. Preventive Medicine for the Doctor in his Community: an Epidemiologic Approach. 2nd ed. New York: McGraw-Hill; 1965. p. 589
- [4] Starfield B, Hyde J, Gervas J, Heath I. The concept of prevention: a good idea gone astray? *Journal of Epidemiology and Community Health*. 2008;**62**(7):580-583. DOI: 10.1136/jech.2007.071027
- [5] Organização Mundial da Saúde. Relatório da OMS sobre câncer: estabelecendo prioridades, investindo com sabedoria e cuidando de todos. Geneva: WHO; 2020. p. 149. Available from: [apps.who.int/iris/handle/10665/330745;jsessionid=2722B5EBF3812CFF2E489833DF9EE9A8](https://apps.who.int/iris/handle/10665/330745;jsessionid=2722B5EBF3812CFF2E489833DF9EE9A8)
- [6] Pinho VFS, Coutinho ESF. Variáveis associadas ao câncer de mama em usuárias de unidades básicas de saúde. *Cadernos de Saúde Pública*. 2007;**23**(5):1061-1069. DOI: 10.1590/S0102-311X2007000500008
- [7] Baquet CR, Commiskey P. Socioeconomic factors and breast carcinoma in multicultural women. *Cancer*. 2000;**88**(5):1256-1264. DOI: 10.1002/(SICI)1097-0142(20000301)88:5+<1256::AID-CNCR13>3.0.CO;2-3
- [8] Gorey KM et al. Income and long-term breast cancer survival: comparisons of vulnerable urban places in Ontario and California. *The Breast Journal*. 2010;**16**(4):416-419. DOI: 10.1111/j.1524-4741.2010.00922.x
- [9] Van Maaren MC et al. Socioeconomic status and its relation with breast cancer recurrence and survival in young women in the Netherlands. *Cancer Epidemiology*. 2022;**77**:e102118. DOI: 10.1016/j.canep.2022.102118
- [10] Trewin CB, Johansson ALV, Hjerkind KV, et al. Stage-specific survival has improved for young breast cancer patients since 2000: but not equally. *Breast Cancer Research and Treatment*. 2020;**182**:477-489. DOI: 10.1007/s10549-020-05698-z
- [11] Brasil. Instituto Nacional de Câncer José Alencar Gomes da Silva. Estimativa 2020: incidência de câncer no Brasil. Rio de Janeiro: INCA; 2019. Available from: [www.inca.gov.br/sites/ufu.sti.inca.local/files//media/document//estimativa-2020-incidencia-de-cancer-no-brasil.pdf](http://www.inca.gov.br/sites/ufu.sti.inca.local/files//media/document//estimativa-2020-incidencia-de-cancer-no-brasil.pdf)
- [12] Travassos C, De Castro MSM. Determinantes e desigualdades sociais no acesso e na utilização de serviços de saúde. In: Giovanela L, et al., organizers. Políticas e sistemas de saúde no Brasil. Rio de Janeiro: Ed. FIOCRUZ; 2008. pp. 215-243
- [13] Albrecht CAM et al. Breast cancer mortality among patients attending a cancer hospital, Vitoria, ES. *Revista Brasileira de Epidemiologia*. 2013;**16**(3):582-591. DOI: 10.1590/S1415-790X2013000300003
- [14] Nogueira MC, et al. Disparidade racial na sobrevivência em 10 anos

para o câncer de mama: uma análise de mediação usando abordagem de respostas potenciais. *Cadernos de Saúde Pública* 2018.;34(9):e00211717. DOI:10.1590/0102-311X00211717. ISSN 1678-4464

[15] Brasil. Instituto Brasileiro de Geografia e Estatística. Pesquisa Nacional por Amostra de Domicílios Contínua. Rio de Janeiro: IBGE; 2019. Available from: <https://www.ibge.gov.br/estatisticas/sociais/trabalho/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=destaques>

[16] Brasil. Instituto Brasileiro de Geografia e Estatística. Desigualdades sociais por raça ou cor no Brasil. Estudos e Pesquisas: Informação Demográfica e Socioeconômica. 2019;41:1-12. Available from: [https://biblioteca.ibge.gov.br/visualizacao/livros/liv101681\\_informativo.pdf](https://biblioteca.ibge.gov.br/visualizacao/livros/liv101681_informativo.pdf)

[17] Scott J. Gênero: uma categoria útil para a análise histórica. Lobo GL, translator. *Educação & Realidade*. 1995. Available from: <https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/71721>

[18] Crenshaw K. Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*. 1989;189:139-167. Available from: <http://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8>

[19] Cabral ALLV, Giatti L, Casale C, et al. Vulnerabilidade social e câncer de mama: diferenciais no intervalo entre o diagnóstico e o tratamento em mulheres de diferentes perfis sociodemográficos. *Revista Ciência & Saúde Coletiva*. 2019;24(2):613-622. DOI: 10.1590/1413-81232018242.3167201626

[20] Portella MGR. A invisibilidade do papel de gênero no cuidado de mulheres

com câncer de mama no município de Niterói [master's thesis]. Niterói: Programa de Pós-Graduação em Saúde Coletiva. Universidade Federal Fluminense; 2019. p. 132

[21] Nogueira ACC, Silva LB. Saúde, gênero e serviço social: contribuições sobre o câncer e saúde da mulher. *VÉRTICES* 2009;11(1/3):7-17. Available from: <http://essentiaeditora.iff.edu.br/index.php/vertices/article/viewArticle/8>

[22] Höfelmann DA et al. Sobrevida em dez anos e fatores prognósticos em mulheres com câncer de mama em Joinville, Santa Catarina, Brasil. *Revista Ciência & Saúde Coletiva*. 2014;19(6):7-17. DOI: 10.1590/1413-81232014196.03062013

[23] Carloto CM, Gomes AG. Geração de renda: enfoque nas mulheres pobres e divisão sexual do trabalho. *Service Social*. 2011;105:131-145. DOI: 10.1590/S0101-66282011000100008

[24] Herndon JE II, Kornblith AB, Holland JC, Paskett ED. Effect of socioeconomic status as measured by education level on survival in breast cancer clinical trials. *Psycho-Oncology*. 2013;22(2):315-323. Available from: DOI: 10.1002/pon.2094

[25] Costa SG. Proteção social, maternidade transferida e lutas pela saúde reprodutiva. *Revista Estudos Feministas*. 2002;10(2):301-323. Available from: DOI: 10.1590/S0104-026X2002000200003

[26] Barros FPC, Sousa MF. Equidade: seus conceitos, significações e implicações para o SUS. *Saúde e Sociedade*. 2016;25(1):9-18. DOI: 10.1590/S0104-12902016146195

[27] Brasil. Instituto Brasileiro de Geografia e Estatística. Pesquisa Nacional

de Saúde. Rio de Janeiro: IBGE; 2019. Available from: <https://www.ibge.gov.br/estatisticas/sociais/saude/9160-pesquisa-nacional-de-saude.html?=&t=resultados>

[28] Liedke PER et al. Outcomes of breast cancer in Brazil related to health care coverage: a retrospective cohort study. *Cancer Epidemiology, Biomarkers & Prevention*. 2014;**23**(1):126-133. DOI: 10.1158/1055-9965.EPI-13-0693

[29] Teixeira L. O controle do câncer no Brasil na primeira metade do século XX. *História, Ciências, Saúde – Manguinhos*. 2010;**17**(suppl 1):13-31. DOI: 10.1590/S0104-12902016146195

[30] Costa AM. A organização da atenção ao câncer de mama nos municípios: estudo de um sistema local de saúde [master's thesis]. Niterói: Programa de Pós-Graduação em Política Social. Universidade Federal Fluminense; 2014. p. 134

[31] Porto MAT, Teixeira LA, Silva RCF. Aspectos históricos do controle do câncer de mama no Brasil. *Revista Brasileira de Cancerologia*. 2010;**59**(3):331-339. DOI: 10.32635/2176-9745.RBC.2013v59n3.496

[32] Oliveira TN. Proteção social dirigida às mulheres com câncer de mama: um estudo exploratório [master's thesis]. Niterói: Programa de Pós-Graduação em Política Social. Universidade Federal Fluminense; 2017. p. 130

[33] Castro JA. Política social e desenvolvimento no Brasil. *Economies et Societes*. 2012;**21**(spe):1011-1042. DOI: 10.1590/S0104-06182012000400012

[34] Cabral ALLV et al. Vulnerabilidade social e câncer de mama: diferenciais no intervalo entre o diagnóstico e o tratamento em mulheres de diferentes perfis sociodemográficos. *Revista Ciência*

& Saúde Coletiva. 2019;**24**(2):613-622. DOI: 10.1590/1413-81232018242.31672016

[35] Duarte TC et al. Diagnosis of breast câncer and COVID-19: incidence analysis in the states of Bahia and Rio Grande do Norte. *RSD*. 2022;**11**(2):e59611226283. DOI: 10.1590/1413-81232018242.31672016

[36] Benites ALCR, Gonçalves AJT, Mendes DG, Silva MCCN, Silvério ACP. Impacts of the COVID-19 pandemic on breast cancer treatment: chemo therapy and endocrine therapy. *RSD* 2022;**11**(7): e34211729906. DOI: 10.33448/rsd-v11i7.29906

[37] Mendes EV. O lado oculto de uma pandemia: a terceira onda da Covid-19 ou o paciente invisível. 1st ed. Brasília: CONASS; 2020. p. 92. Available from: <https://www.conass.org.br/biblioteca/o-lado-oculto-de-uma-pandemia-a-terceira-onda-da-covid-19-ou-o-paciente-invisivel/>