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Policies for Prevention and Control of Oral Cancer in the light of Giddens' Structuration Theory

Fernando Lopes Tavares de Lima (https://orcid.org/0000-0002-8618-7608) [1]
Gisele O'Dwyer (https://orcid.org/0000-0003-0222-1205) [2]

Abstract *Challenges remain to ensure access to diagnosis and treatment ten years into continuous cancer prevention, control, and oral health policies. This study aims to analyze the oncology and oral health policies in force regarding the process of implanting oral cancer-related care components. Ten policies were analyzed under the lenses of the Structuration Theory, besides data on the supply of services between 2002 and 2017. Low coverage and inadequate regional distribution were highlighted in primary and secondary health care levels, despite increased funding and number of services. Unequal distribution of performed surgeries was identified in tertiary care. The limitation of home care services has hindered users' access to palliative care. A convergence was identified between the analyzed policies and concern with the regulation of authoritative resources and the increase of allocative resources, which stirred the expansion of services. Investments should be made in the expansion, regionalization, and universalization of services. A possible setback in these policies could aggravate the situation and contribute to the increase in health inequalities.*

Key words *Mouth Neoplasms, Health Policy, Oral Health*

[1] Instituto Nacional de Câncer José Alencar Gomes da Silva. Praça Cruz Vermelha 23, Centro. 20230-130 Rio de Janeiro RJ Brasil. flima@inca.gov.br
[2] Escola Nacional de Saúde Pública Sergio Arouca, Fundação Oswaldo Cruz. Rio de Janeiro RJ Brasil.

Introduction

Oral cancer is a broad category of locations for neoplasms of different etiologies and histological profiles, although it generally refers to squamous cell carcinoma[1]. A literature review revealed at least 17 different terms that report data on oral cancer, which has hampered communication among professionals[2]. The variability reinforces the lack of consensus in the definition of oral cancer in the specific anatomical designation of the disease in scientific publications and reports[2]. As there is no standardization on which anatomical structures underlie this classification, some differences are observed between the sites included in research on this subject, which hinders the comparison of epidemiological findings[3].

Oral cancer is the most common malignant neoplasm in the head and neck region, and its main risk factors are the chronic use of tobacco and alcohol and sun exposure (for lip cancer)[4,5]. In 2012, approximately 300 thousand new cases and 145 thousand deaths were estimated in the world[6]. In Brazil, 14,700 new cases have been estimated for 2017, 11,200 in men, and 3,500 in women[4].

The early detection and treatment of this disease are required to reduce mortality and the adverse impact on the quality of life[7]. Although it occurs in a region widely accessible to clinical examination, lesions are still diagnosed very late[8]. A national study identified that only 6.25% of tumors are considered *in situ* or stage I (initial stage) while stage II, III, and IV correspond to 18.19%, 34.45%, and 41.12%, respectively[9]. This situation evidences a delay in the care line of users with this neoplasm.

This delay has been associated with the patient's late search for services, and the health system's low responsibility to provide users with comprehensive care[10]. Studies that sought reasons related to the organization of the health system directed the analysis towards specific programs[11] or professional perception regarding the problem[12,13], unrelated to the policies in force and the available structure.

The fight against oral cancer in Brazil has been the object of actions since the 1930s[5]. Notwithstanding this, these initiatives were discontinuous and of little scope, which did not control the disease in the face of expected standards. Among the primary factors historically implicated for this scenario are people's underutilization of services, the inadequate training of professionals for the diagnosis of oral cancer, and the appreciation of teeth as the only structures worthy of care in the oral cavity[14,15].

Today, oral cancer prevention and control public actions intersect between the National Cancer Prevention and Control Policy (PNPCC) and the National Oral Health Policy (PNSB). Despite increased funding, infrastructure, and human resources in oral health[16], some challenges remain for the qualified access to diagnosis and treatment by the Brazilian Unified Health System (SUS). It is necessary to understand the structural factors related to these policies in order to overcome them. Thus, this study aims to analyze the oncology and oral health policies in force concerning the process of implantation and implementation of oral cancer-related care components.

Methods

We analyzed the regulations that structure the PNPCC and PNSB identified on the website of the Ministry of Health's Health Care Secretariat and located in the Saúde Legis system, and collected data in November 2017. The standards that explain the care components responsible for the care of oral cancer users were included, and those that did not directly address the structuring of care for this disease, such as smoking reduction policies, which are relevant in controlling this neoplasm, deserved a specific analysis.

The analysis was complemented with data on the implementation process of the care components provided for in the PNPCC. The rates of variation in the number of inhabitants, Family Health Strategy (ESF) teams, Oral Health Teams (ESB), the population covered by these teams, and the number of municipalities served by this strategy were presented by Brazilian region to analyze primary care. Data were collected from the Ministry of Health's Strategic Management Support Room (SAGE). The variation rates were calculated by dividing the values found in 2017 by those of 2002 (the broadest time range available on SAGE). The same logic of analysis was used for secondary care. The variation rates were calculated by dividing the values found in 2016 by those of 2004 (the broadest time range available on SAGE).

Within tertiary care, the relationships between the number of inhabitants and the number of units, the number of overall cases of cancer and oral cancer estimated by INCA[4] for 2018 and the number of units, the number of units with

a record of surgery performed to treat oral cancer, and the number of surgeries performed per unit were analyzed by Brazilian region and type of tertiary unit. We used data from the qualification ordinance of these units and SUS Hospital Information System (available from April to September 2017).

The analytical framework used was Giddens Structuration Theory (ST)[17]. The ST has been presented as a theoretical resource for the analysis of public health policies, which are structured from governmental intentionality and the concrete actions of different actors in the applicability of these policies. It has analytical potential and allows employing and integrating several investigation methods, as it is not defined by pre-established limits[18,19].

The ST is based on an understanding of the "structure duality", where the structural properties of the social system are understood as both a means and result of the practices they recursively organize[17]. A balanced understanding between the influence of agents' social structures and the freedom of action of these agents to modify this structure is sought[20,21].

The structure consists of a set of rules and resources. The rules correspond to the procedures inscribed in the actors' practical awareness and are operationalized in their actions. Formalized prescriptions and informal rules experienced in social integration are included; they have a normative aspect, referring to rights and obligations, and a semantic aspect, which alludes to the qualitative and procedural meaning of practices. Moreover, they have a regulatory role, which determines how something should be done to avoid sanctions[17,19,21].

In turn, resources are the facilities that agents access to achieve their goals. They are classified as allocative, which refer to the control of goods and objects, and authoritative, which are the non-material resources involved in the generation of power. Power is central to ST, and it is understood as the ability of some actors to control other actors, depending on the opportunity and the relationship between agents[17,19].

Given the objective of this study, we performed the analysis classified by Giddens as of the "institutional type", emphasizing the structural properties of the health system through the analysis of how the structure has shaped the practices of the agents involved (managers, professionals, and users)[17] through rules (laws, norms, protocols) and resources (human, financial, physical and authoritative).

Thus, the results were organized to present the structuring bases of oral cancer control practices, considering the different care components provided for in the PNPCC: Primary Care, Specialized Outpatient Care, Specialized Hospital Care, and Home Care[22].

Results and discussion

We included ten regulations published between 2004 and 2017 (six were republished in 2017 consolidation ordinances) (Chart 1). Four refer to the organization of oral health actions[22-24], five are related to oncology[25-27], and one refers to the financing process[28].

Cancer care in the SUS is structured through the 2013 PNPCC, which improved the 2005 National Cancer Care Policy (PNAO). It aims to:

(...) reduce the mortality and disability caused by this disease and possibly curb the incidence of some types of cancer, and contribute to the improvement of the quality of life of users with cancer, through promotion, prevention, early detection, timely treatment, and palliative care actions[22].

The PNPCC presents the normative aspects that define the responsibilities of the managers of the three SUS spheres. As a shared responsibility, everyone must guarantee the allocation of resources necessary for the organization of the health care network, such as adequate infrastructure, trained and qualified human resources, material resources, equipment, and sufficient supplies[22].

Furthermore, the federal sphere should cooperate with the other managers in the organization of the services, securing funding, elaborating clinical protocols, defining guidelines for the organization of the lines of care, and monitoring compliance with the sixty-day post-diagnosis term to start the treatment[22,25]. The state entity must define strategies for articulating with SUS municipal directorates to elaborate regional plans and agreements required for cancer control. Moreover, the state should recruit services under its management and ensure compliance with the sixty-day term[22]. The municipalities should regionally agree on the actions and services necessary for the comprehensive care of people with cancer, contracting the required services when there is no municipal installed capacity. It should also agree on the regulation and flow of users to guarantee referrals and counter-referrals[22].

When presenting the different responsibilities of the managers, it was sought to regulate

Chart 1. Norms included in the study, by year of publication and objective.

Year	Norms	Objective
2004	National Oral Health Policy Guidelines[23].	It presents the guidelines of the Ministry of Health for the organization of oral health care within the Unified Health System.
2012	Law nº 12.732 of November 22[25].	Establishes a deadline for the start of treatment of a patient with proven malignancy.
2014	Ordinance MS/SAS nº 140 of February 2726.	Redefines the criteria and parameters for the organization, planning, monitoring, control and evaluation of health establishments qualified in specialized care in oncology and defines the structural, operating and human resources conditions for the qualification of these establishments within the Unified Health System.
2015	Ordinance MS/SAS nº 516 of June 17[27].	Approves the Head and Neck Cancer Diagnostic and Therapeutic Guidelines.
2017	Consolidation Ordinance MS/GM nº 2 (Annex XXII) of October 3[22].	Establishes the National Policy for the Prevention and Control of Cancer in the Health Care Network of People with Chronic Diseases within the Unified Health System.
2017	Consolidation Ordinance MS/GM nº 2 (Annex XXII) of October 3[22].	Approves the National Primary Care Policy to review the current implementation and operationalization regulations, within the Unified Health System, establishing guidelines for the organization of the Primary Care component in the Health Care Network.
2017	Consolidation Ordinance MS/GM nº 5 (Section I, Chapter V, Title IV) of October 3[24].	Establishes the Dental Specialties Centers and Regional Dental Prosthesis Laboratories, and with established criteria, norms and requirements for their accreditation.
2017	Consolidation Ordinance MS/GM nº 5 (Section II, Chapter I, Title IV) of October 3[24].	Establishes the National Program for Improving Access and Quality in Primary Care
2017	Consolidation Ordinance nº 5 (Section II, Chapter V, Title IV) of October 324.	Provides for the Program for Improving Access and Quality of Dental Specialty Centers
2017	Consolidation Ordinance MS/GM nº 6 of October 3[28].	Consolidates the rules on financing and transferring federal resources to the health actions and services of the Unified Health System.

MS: Ministry of Health; SAS: Healthcare Secretariat; GM: Minister's Office.
Source: Saúde Legis. Available from: http://portal2.saude.gov.br/saudelegis/LEG_NORMA_PESQ_CONSULTA.CFM.

the relationships between federal entities, mainly in the formulation of agreements for the configuration of regionalized networks. However, the distribution of allocative and authoritative resources is quite uneven despite standardization, as it depends on the opportunities, stance, and relationships between agents and their institutions[17], which entails more significant or fewer hardships for managers and professionals in their daily practice of oral cancer control, depending on the relationships of power and access to allocative resources.

Primary Care

PHC's care component is regulated through the National Primary Care Policy (PNAB) and develops individual, family, and community health actions that include promotion, prevention, protection, diagnosis, treatment, rehabilitation, harm reduction, palliative care, and health surveillance. It is the system's preferred gateway, responsible for coordinating the care and regulation of users' flows and counterflows across the network, and must be provided freely, universally, and comprehensively[22].

The ESF is PNAB's priority action to expand and qualify this level of care[22]. The ESB integrated into the ESF team can be Mode 1 (a dental surgeon and an oral health technician (TSB) or health assistant (ASB)) or Mode 2 (an ESB of Mode 1 plus a TSB). ESBs must share the management and work process of the ESF team to which they are linked, with health responsibility for the same population and assigned territory[22].

Primary care dentists should provide individual and group oral health care (health promotion and protection, disease prevention, diagnosis,

treatment, monitoring, rehabilitation, and maintenance of health)[22]. Within oncology, the PNPCC establishes for primary care the task of carrying out actions to promote health and prevent cancer risk factors. Among the relevant factors is tobacco and alcohol use reduced prevalence concerning oral cancer[9,22].

Another important function of primary care highlighted in the PNPCC is the screening of early lesions. However, concerning oral cancer, no scientific evidence confirms that its screening results in extended patient survival[29]. Thus, the ESB should organize other strategies, such as monitoring groups frequently exposed to risk factors, aiming at the early detection of lesions, and subsequent timely referral of users for diagnostic confirmation[22,23].

The responsibility for financing Primary Care is tripartite. However, due to the instability of state and municipal resources, Brazilian public health expenditure has historically been financed by federal resources[30]. This broader access to allocative resources gives the minister of health the role determining agent of public policies, even in the case of independent federal entities. However, despite its leading role, the minister's relationship with other managers is not without conflict, as state and municipal health secretaries, albeit with less allocative resources, have political articulation strategies that increase their influence in determining health policies issued by the Ministry of Health, which illustrates this relationship's dialectic control.

The federal resource of this component consists of the Fixed Primary Care Floor and the Variable Primary Care Wage. While the first is calculated by per capita value, the second is conditioned to the implementation of strategies and programs, serving as an essential factor inducing the implementation of the ESB. Besides the direct financial incentive, the ESF Dental Equipment Supply Plan for the ESBs establishes that the Ministry of Health should donate complete dental equipment for each implanted municipal team[28].

The PNAB also established measures to expand access for populations with specific vulnerabilities. The Mobile Dental Unit (UOM), consisting of offices structured in adapted and equipped vehicles provided by the Ministry of Health to the municipalities, is intended for municipalities with a large territorial extension. Besides the UOM, the municipality receives a monthly transfer, which should secure consumption materials and professionals[22]. The Riverine Family Health Teams (ESFR) and Waterway Family Health Teams (ESFF) are destined for the Legal Amazon and the Wetlands of Mato Grosso do Sul, and can count on the presence of a dental surgeon, with funding similar to the ESB of the ESF[22,28]. The Street Clinic Teams (ECR) address the different health needs of the people living in the streets, and the dental surgeon and the TSB can be part of the team, with no difference in the transfer of resources[22,28]. The Prison System Health Teams (ESP), in turn, consist of a multidisciplinary team, and the presence of the dental surgeon and the TSB (or ASB) is mandatory. The monthly financing varies by number of detainees and the modality of the teams[22,28]. These are essential measures for structuring oral cancer care, given that they are aimed at people with limited access and often exposed to the chief risk factors[31-33].

The financing model has stimulated the expansion of the ESF over the years, including the ESB (Table 1). Between 2002 and 2017, the number of ESF teams increased in all regions, especially the North (2.69 times more teams). The number of ESB increased more than fivefold in the country at a faster pace, reaching a nine-fold increase in the southeast region. Accompanying these figures, the coverage of ESF and ESB services increased across the country (1.87 and 2.45 times, respectively). The number of municipalities served by the ESF increased by around 30%, reaching about 97% of Brazilian municipalities. ESB doubled in the number of covered municipalities, reaching 88.5% of the municipalities in 2017.

The expansion of the ESBs was at a more intense pace than that of the ESF during the period studied. This result is associated with three interrelated factors: the low availability of oral health services before the incorporation of the ESB into the ESF, the delayed inclusion of the ESB in the ESF, and the structuring process provided by PNSB and PNAB.

The inclusion of the ESB in the ESF sought to cover a historically repressed demand, and is an essential step in the reorganization of oral health care, enabling the expansion of primary care universally and breaking with policies centered on restricted groups[34]. This inclusion occurred in 2000 and followed a ratio of two ESF teams for each ESB. In 2003, with the structuring of the PNSB and the prioritization of primary care actions, it was possible to expand the number of ESB until they were equal to the ESF teams. Thus, the highest pace of ESB implementation identi-

Table 1. Variation of population, Family Health Strategy (ESF) and Oral Health Teams (ESB) teams, coverage and municipalities served in 2002 and 2017, in numbers (N) and percentage (%), by Brazilian region.

	Midwest	Northeast	North	Southeast	South	Brazil
Population (N)						
2002	11,883,997	48,328,769	13,243,229	73,469,982	25,454,344	172,358,700
2017	15,660,988	56,915,936	17,740,418	86,356,952	29,439,773	206,114,067
Variation	1.32	1.18	1.34	1.18	1.16	1.20
Teams (N)						
ESF 2002	1,417	6,699	1,214	4,981	2,423	17,734
ESF 2017	2,745	14,757	3,271	13,300	5,799	39,782
Variation ESF	1.94	2.20	2.69	2.67	2.39	2.24
ESB 2002	534	2,134	242	705	464	4,261
ESB 2017	1,933	10,700	1,812	6,486	3,122	24,053
Variation ESB	3.62	5.01	7.49	9.20	6.73	5.64
Coverage (%)						
ESF 2002	38.97	45.33	30.56	22.63	30.73	31.93
ESF 2017	55.70	75.13	57.97	49.93	61.95	59.74
Variation ESF	1.43	1.66	1.90	2.21	2.02	1.87
ESB 2002	26.00	28.00	11.00	6.00	14.00	15.00
ESB 2017	39.94	56.78	33.26	24.47	34.33	36.73
Variation ESB	1.54	2.03	3.02	4.08	2.45	2.45
Municipalities (N)						
ESF 2002	439	1,408	328	1,171	817	4,163
ESF 2017	458	1,786	445	1,574	1,139	5,402
Variation ESF	1.04	1.27	1.36	1.34	1.39	1.30
ESB 2002	349	1,025	154	334	440	2,302
ESB 2017	448	1,755	420	1,329	981	4,933
Variation ESB	1.28	1.71	2.73	3.98	2.23	2.14

Source: Strategic Management Support Room of the Ministry of Health (SAGE). Available from: http://sage.saude.gov.br/.

fied in this study occurred when the implementation of ESF teams was already stabilized.

Despite the significant expansion of ESB, the current coverage of 36.73% is quite limited, considering that it is a primary care service within a universal health system[35]. The low coverage, associated with the ESBs' work overload, leaves a large portion of the population with limited access (or no access) to health promotion, prevention, and diagnosis of oral cancer. Thus, the increased public investment is still insufficient, given the accumulated needs and the growing population demand for services[35].

Besides the expanded services, we should observe the quality in which they are being provided. The National Program for Improving Access and Quality in Primary Care (PMAQ-AB) was launched in 2011 and is in the third cycle[24]. Adherence to the program is voluntary but has been strongly encouraged by federal financial transfers[19,23]. More than a new financing instrument and power expression of the federal entity, the PMAQ-AB should serve as an essential tool for diagnosing the quality of services.

Data from the first cycle show that 72.66% of ESBs claim to carry out campaigns to detect suspected malignant lesions and refer cases. Despite this high percentage, it should be noted that there is no information on the type and method of the campaign carried out, the frequency of the campaign, the audience reached and, mainly, their effectiveness in the early detection of oral cancer or the increased survival of users with an identified lesion. It is also noteworthy that 48.3% report waiting 365 days or more to get an appointment with the specialist, 40.9% do not register and monitor suspected and confirmed cases, and only 45.8% reported preferential flows for users

with suspected oral cancer[36]. Despite standardized primary care, few changes are observed in care practices aimed at this disease.

Given this scenario, the rules defined through the oncology and oral health policies converge on the role of primary care in oral cancer control. Some aspects of these policies facilitate the control of this neoplasm, such as incorporating the ESB into the various strategies for establishing primary care teams (ESF, ESFR, ESFF, ECR, and ESP) and the increased federal funding for the implementation and financing of these teams. However, they also present coercive aspects, imposed on ESB professionals, such as low care coverage and work overload, which hinder the early diagnosis and treatment of oral cancer.

Specialized Outpatient Care

The Specialized Outpatient Care provided for in the PNPCC consists of the second level of care services that perform diagnostic and therapeutic care and ensure the referral of users with suspected or diagnostic confirmation of cancer to hospital units[22].

In the PNSB, the CEO is responsible for providing these services. There is specific federal funding for the implementation and funding of the CEO, depending on the type of service: CEO Type I (3 offices), CEO Type II (4 to 6 offices), CEO Type III (7 or more offices)[28]. CEOs assume a strategic role in the detection of oral cancer in the SUS since all units must perform the diagnosis and detection of oral cancer[24], among other services.

In general, the CEO has been considered a breakthrough, as it breaks with the historical limited provision of specialized oral health care[37]. As shown in Table 2, the incentive through the PNSB led to an increased number of CEOs over the years, reaching 1,033 establishments in 2016 (ten times higher than in 2004). The northeastern region recorded the most considerable increase in units (sixteen-fold). The ratio between population and the number of units has decreased eight-fold in Brazil, with a mean of around 200,000 inhabitants per CEO. In 2016, the Northeast achieved the best ratio between population and number of CEOs (141,427 inhabitants per CEO), and the North reported the worst ratio (260,410 inhabitants per CEO). The number of municipalities with units installed increased 14-fold nationwide, reaching 857 municipalities. Although the Southeast is the region with the most significant proportional increase in the number of municipalities (22.46 times), the Northeast is the region with the highest number of municipalities served (356 municipalities).

The PNSB boosted the expansion of specialized dentistry services (among them, oral cancer diagnosis) throughout all regions of the country. However, it is limited to few municipalities (15% of cities), which hinders access by part of the population. Moreover, the expansion model increased inequality of access, since resources targeted cities that already had the best social indicators[38]. Given the incipient oral care regionalization process[39], it is crucial to scale-up investments in the CEO as a regional facility (as already recommended by law), so that residents of small municipalities also access these services.

Another strategy for expanding the oral cancer diagnosis that has been discussed is to encourage primary care professionals to perform biopsies[8] as well. However, these dental surgeons are known to be overwhelmed with other demands and do not feel qualified to perform this procedure[40], which requires investment in continuing education and the necessary materials and instruments.

CEO's financial transfers are linked to production targets for each specialty and implementation modality. However, there is no specific target for the oral diagnosis service, where biopsies of suspected lesions are included in the group of oral surgery procedures[28]. The lack of a specific target can lead managers to channel services to other priorities and not feel obliged to provide this service. An indication of this situation was shown in a study conducted with data from the PMAQ-AB for the state of Rio de Janeiro. Among ESBs with a reference CEO, 25% answered negatively concerning access to the specialty of stomatology. Although this is the dental specialty most qualified for the diagnosis of oral cancer and a mandatory service for CEOs, a significant number of ESBs is struggling to confirm the diagnosis of suspected lesions[41].

The Program for the Improvement of Access and Quality of the Dental Specialization Centers (PMAQ-CEO) was created in 2013 to qualify the actions and defined the quality parameters for these units[25]. As in the PMAQ-AB, the financial incentive has fueled municipalities' adherence[28]. No studies on the first cycle of the PMAQ-CEO have yet been found. This type of action is essential, as there is a mismatch between the proposed policy and the daily practice of services[42].

Table 2. Variation of population, Dental Specialty Centers (CEO), population ratio by CEO and municipalities served in 2004 and 2016, in numbers, by Brazilian region.

	Midwest	Northeast	North	Southeast	South	Brazil
Population						
2004	12,270,694	49,890,217	14,130,131	78,211,800	25,991,388	174,443,248
2016	15,447,265	56,570,893	17,447,494	84,682,360	29,238,905	206,705,005
Variation	1.25	1.13	1.23	1.08	1.12	1.18
CEO						
2004	15	25	6	39	15	100
2016	74	400	67	385	127	1,033
Variation	4.93	16	11.16	9.87	8.46	10.33
População/CEO						
2004	818,046	1,995,608	2,355,021	2,005,430	1,732,759	1,744,432
2016	208,746	141,427	260,410	219,954	230,227	200,101
Variation	3.91	14.11	9.04	9.11	7.5	8.71
Municipalities						
2004	9	21	4	13	13	60
2016	51	356	51	292	107	857
Variation	5.66	16.95	12.75	22.46	8.23	14.28

Source: Strategic Management Support Room of the Ministry of Health (SAGE). Available from: http://sage.saude.gov.br/.

Specialized Hospital Care

Specialized Hospital Care in oncology consists of units qualified as High-Complexity Oncology Care Centers (CACON), High-Complexity Oncology Care Units (UNACON), and General Hospitals with Oncology Surgery. These services provide high-complexity specialized treatments for people with cancer, perform and guide palliative care during hospitalization, and outpatient and home care[22].

CACONs are establishments that perform definitive diagnosis and treatment of all types of cancer (but not necessarily for rare and childhood cancers). All CACONs must provide surgery, radiation, and chemotherapy within their hospital structure. The UNACONs perform the definitive diagnosis and treatment only for the most prevalent cancers, providing, minimally, surgical and chemotherapy treatments. If they do not offer radiotherapy treatment, they should formally contract this service from another unit. General Hospitals with Oncological Surgery proceed with surgical treatment of cancer and refer, in a regulated manner, cases requiring therapeutic supplementation[22].

The organization's criteria and parameters, including planning, monitoring, control, and evaluation of establishments qualified in specialized care in oncology 26, are presented in Ordinance MS/SAS nº 140 of 2014. Giddens labels this as a regulating aspect, as it defines the performance boundaries of each structure[17].

This Ordinance mentions that the qualification process must observe the ratio of one establishment for every 500,000 inhabitants. The North region is authorized to enable one UNACON in regions with less than 500,000 inhabitants and low population density. In turn, the South and Southeast regions can qualify CACON or UNACON in areas with less than 500,000 inhabitants, provided that there are an estimated 900 new annual cases of cancer[26].

Table 3 shows the number of facilities qualified in specialized hospital oncology care in 2017, by Brazilian region[43], highlighting that 48% of services are in the Southeast. This concentration of services is associated with demographic data (higher population density and older population), epidemiological data (higher incidence of cancer), and economic data (a region with municipalities with more financial resources). The

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number of cancer and oral cancer cases estimated for 2018 by specialized unit is quite similar between regions (Table 3) despite regional gaps in the ratio between the number of inhabitants per unit qualified in oncology.

The treatment of oral cancer must follow the Diagnostic and Therapeutic Guidelines for Head and Neck Cancer, published by the Ministry of Health in 2015. This document defines the criteria for diagnosis, treatment and national regulation, control, and evaluation mechanisms. These guidelines specify that users should preferably be serviced at qualified hospitals such as CACON or UNACON equipped with radiotherapy[27].

All CACONs must perform oral cancer treatment. Treatment can be performed at UNACONs and General Oncological Surgery Hospitals, as long as there is a schedule for this service defined by the SUS[26] interagency committees. Six months into the publication of the qualification ordinance, 219 of 299 qualified establishments entered data on 1,891 surgeries to treat oral cancer in the SUS Hospital Information System (Table 4).

We can observe that 73% of the country's qualified units performed oral cancer surgeries in the analyzed period. Two CACONs did not enter data on the procedures, which must be mandatory in these services[26]. Most of the surgeries were performed at UNACONs, given the more significant number of these units. However, CACONs' mean production is three times higher than UNACONs. When we look at regional discrepancies, we see again access inequalities, where the North region has the lowest number of qualified units and the lowest number of surgeries performed, while the Southeast has the highest values.

The rules for implementing and operating CACONs and UNACONs are necessary normative instruments for structuring specialized oncology services. These standards have minimum requirements that seek to ensure the quality of services provided to the population. However, despite this facilitating aspect for standardization and quality, these rules can hinder the implementation of services in regions where managers have less allocative resources. This situation is aggravated when we observe that a specific funding policy[44] has not been established, as was the case at other levels of care.

Home care

Within the PNPCC, home care refers to the palliative care of users with cancer, which must be shared with PHC teams and articulated with the specialized units. Multiprofessional Home Care Teams (EMAD) must respect the culture and values of households, emphasizing symptom control and clear communication with users and relatives[22].

This type of care has gained prominence, not only in Brazil. A study with 1,290 oral cancer patients followed-up for 20 years in England found that patients are more likely to die at home or in a specialized palliative care unit than in the past.

Table 3. Distribution of qualified oncology units and the relationship between the number of inhabitants, estimated cases of cancer and estimated cases of oral cancer, by unit and Brazilian region, 2018.

Units	Midwest	Northeast	North	Southeast	South	Brazil
Cacon	2	10	1	22	9	44
General Hospital with Oncological Surgery	0	0	1	7	0	8
Unacon	19	47	9	113	58	246
Total						
Qualified units	21 (7%)	57 (19%)	11 (3%)	142 (48%)	67 (23%)	298
Habitants by unit	755,996	1,004,459	1,630,564	612,322	442,462	696,849
Cancer cases by unit*	2,077	2,058	2,124	1,917	1,877	1,954
Oral cancer cases by unit*	49	49	45	53	42	49

Cacon: High-Complexity Oncology Care Centers; Unacon: High-Complexity Oncology Care Units. * Cases estimated for 2018.
Sources: INCA, 20173; Ordinance MS/SAS nº 458 of 201743; Strategic Management Support Room of the Ministry of Health. Available from: http://sage.saude.gov.br/#.

Table 4. Number of hospitals qualified in Oncology that entered in the Hospital Information System of SUS data on the performance of surgery to treat oral cancer and the number of these surgeries in the April-September 2017 period, by Brazilian region.

Units	Midwest	Northeast	North	Southeast	South	Brazil
Cacon						
Units	2	10	1	22	9	44
Units with surgery records	2	9	1	21	9	42
% of units with surgery records	100	90	100	95	100	95
Number of surgeries	88	148	4	389	133	762
Number of surgeries by unit	44.0	16.4	4.0	18.5	14.7	18.14
General Hospital with Oncological Surgery						
Units	0	0	1	7	0	8
Units with surgery records	0	0	0	2	0	2
% of units with surgery records	0	0	0	28	0	25
Number of surgeries	0	0	0	3	0	3
Number of surgeries by unit	0	0	0	1.5	0	1.5
Unacon						
Units	19	47	9	113	58	246
Units with surgery records	13	25	8	79	50	175
% of units with surgery records	68	53	89	70	86	71
Number of surgeries	50	233	54	509	280	1,126
Number of surgeries by unit	3.8	9.3	6.8	6.4	5.6	6.4
Total						
Units	21	57	11	142	67	298
Units with surgery records	15	34	9	102	59	219
% of units with surgery records	71	59	81	72	88	73
Number of surgeries	138	381	58	901	413	1,891
Number of surgeries by unit	9.2	11.2	6.4	8.8	7.0	8.6

Cacon: High-Complexity Oncology Care Centers; Unacon: High-Complexity Oncology Care Units.
Sources: Ordinance MS/SAS nº 458 of 201743; SUS Hospital Information System. Available from: http://sihd.datasus.gov.br/principal/index.php.

The authors affirm that this should be seen as a positive trend, given that it corresponds to the patients' preference[45].

In Brazil, EMAD consist of doctors, nurses, physiotherapists, or social workers, and nursing technicians or assistants. This team can be integrated with a Multiprofessional Support Team (EMAP), which can be staffed with different professionals, including the dental surgeon. The PNSB does not address this type of care[23,24].

The home care standards have allowed developing essential services to improve the quality of life of users without possibilities of cure. However, there is a limitation provided for in the standard that invalidates implantation in most Brazilian municipalities, as the municipality should have more than 20,000 inhabitants, a referral hospital, and be covered by a Mobile Emergency Care Service (SAMU 192)[24]. Faced with this standard-imposed limitation, managers and professionals from small municipalities must develop strategies so that users are not left helpless. The strengthening of the care network, integrating local primary care with regional specialized services, and the provision of caregivers and relatives for palliative home care, are some of the possible paths[24].

We emphasize that the main limitation of the study is the lack of access to care practice, focusing on the structural properties of the health system, as guided by the institutional research of Giddens. Future studies should analyze the "strategic conduct", which focuses on how agents rely on structural properties to establish actions, giving priority to the analysis of the agents' discursive and practical consciences.

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Final considerations

The PNPCC and the PNSB converge concerning the organization of oral cancer prevention and control actions. The government's concern with the regulatory processes of authoritative resources and with the increased assignment of allocative resources has driven the nationwide expansion of services in the last 15 years. However, population coverage remains low, which hampers timely diagnosis and treatment and directly reflects on the quality and survival time of users and increased costs to the system.

It is necessary to invest in the service regionalization and universalization process to curb access inequalities. However, the scenario is of concern in times of fiscal austerity and social programs' spending cuts. A possible setback in these policies can deteriorate the situation and affect those needing the SUS most, deepening these inequalities.

Collaborations

FLT Lima participated in the conception and design of the study, collection and analysis of information, and writing of the paper. G O'Dwyer participated in the design of the study, the analysis of information, and the final review of the paper.

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