

Oral Health Policies in Brazil[§]

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Abstract: Since Oral Health policies in Brazil have been constructed according to circumstances and possibilities, they should be understood within a given context. The present analysis contextualizes several issues of the Brazilian Oral Health Policy, called “Smiling Brazil”, and describes its present stage of development. Today it involves re-organizing basic oral health care by deploying Oral Health Teams within the Family Health strategy, setting up Centers of Dental Specialists within an Oral Health network as a secondary care measure, setting up Regional Laboratories of Dental Prosthesis and a more extensive fluoridation of the public water supply.

Descriptors: Dental health services; Health services evaluation; Oral health / policies.

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Introduction

Traditional Brazilian Oral Health policies were based on an assistencialist model which featured the mother-infant parameter. Their aim was to reach population groups made up of children and pregnant mothers. Owing to the precariousness of the government's role in the supplying of services, the dominant pattern of oral health care was a curative one, largely within the private practice domain, coupled to an extremely unreliable intervention of the State. The latter was restricted to low-complexity procedures and exclusively for the cases requiring basic care.^{1,2} To make matters worse, the exclusion level was high as the needs of large segments of the population were not addressed by any oral health initiative, whether in health promotion or in health care. The situation was characterized by high levels of edentulous people and large unattended sections of the Brazilian population. The Brazilian Oral Health Policy – “Smiling Brazil” – was launched in 2004 under new political conditions. The policy involves an expansion in the deployment of Oral Health Teams within the Family Health strategy, thus involving an increase in the provision of federal funds to states and municipalities. The latter re-defined their activities and established a reference and counter-reference stance in secondary care through the setting up of Centers of Dental Specialists, included prosthetic rehabilitation through the setting up of Regional Laboratories of Dental Prosthesis, and expanded the fluoridation coverage of the public water supply in Brazil. The above-mentioned strategic fronts changed the Brazilian care model and made Oral Health an integral part of the Public Health System, which was defined by the principles of decentralization, equity, integrality and social control. Oral Health became a multi-interface policy based on basic care, health promotion activities within the structuring of a health care network. It not only incorporates medium- and high-complexity procedures and services but also articulates intersectional activities such as the fluoridation of the public water supply and other health supervision procedures.

The history of oral health in Brazil

Inauguration of the Public Health Special Service

in 1952 prompted the first dental health programs in Brazil.³ They were chiefly aimed at school children who were considered epidemiologically liable to disease and, at the same time, highly sensitive to public health intervention.^{3,4}

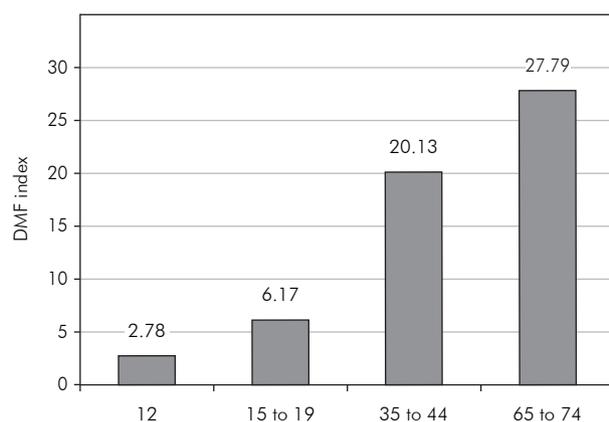
Although the care model was aimed at developing educational activities,⁵ the clinical practice actually reproduced what dentists did in their private clinics. The model conceived was highly individualistic and did not aim at developing a technology program as the result of a planning process. Nevertheless, an important landmark for health in Brazil was achieved during the 1980s owing to the deep transformation which occurred in health policies throughout the country after the Decentralized Unified Health System (SUDS in Portuguese) was inaugurated. Later on, this system evolved into the current Brazilian Health System (SUS in Portuguese). The same environment indicating the dire need for changes in the health care model was in place when the basic principles of the Brazilian Health System were defined. In fact, the Brazilian Health Conference in 1986, coordinated by Dr. Sérgio Arouca, President of the Oswaldo Cruz Foundation (FIOCRUZ) at the time,⁶ insisted on the guidelines of health care universality, decentralization, social control and equity. Decentralization of the Brazilian health policy, one of the foundational guidelines of the Health Reform movement, remained a basic premise of the Brazilian Health System within the 1988 Constitution and of Law n. 8080 of September 19, 1990 which regulated the Brazilian Health System. The establishment of the Basic Operational Norm (NOB-SUS, 1993) consolidated developments such as funding standardization and the decentralization process in the administration of services and other activities within the system.⁷ The incorporation of coverage of oral health collective procedures (CP), defined by Government Regulation n. 184 of October 9, 1991 published by the Ministry of Health, was a landmark during the 1990s of this important change from an individualistic-curative stance to a collective-preventive one.

The Family Health Program (FHP) was established in 1994. Since the focus was placed on the family, on patient registration and on a clinical

practice based on a social epidemiology rationale, it became an efficient strategy for the reorganization of basic care. The establishment of links, commitment and responsibility between professionals and the community is one of its high points (Ministério da Saúde, 1997).⁸ Inclusion of Oral Health Teams (OHT) within the Family Health Program was effectively defined by Government Regulation n. 1444 of December 28, 2000.⁹ The Brazilian Oral Health Policy launched by the Ministry of Health in March 2004 was the result of a long historical process of institutionalization of dentistry within the Brazilian Health System.

Epidemiological aspects

In 1986 the Brazilian Ministry of Health undertook the first Epidemiological Oral Health Survey with population samples from the greater areas of Brazilian capital cities. Its aim was the planning of programs and strategic fronts.¹⁰ A second National Oral Health Survey¹¹ was undertaken in 1996, and then again in 2003. The latter was called the “Oral Health Conditions in the Brazilian Population”. Several dental institutions and organizations, including the Brazilian Dentistry Organization and its regional sections, several universities and state and municipal health departments participated in the project. Some two thousand professionals (dentists and assistants, health agents and others) from 250 Brazilian municipalities also took part in the survey. Furthermore, 108,921 individuals including children (18-36



Graph 1 - Mean DMF Index and participation of subjects according to age.

months old; 5 years old and 12 years old); young people (15-19 years old), adults (35-44 years old) and elderly people (65-74 years old) from urban and rural areas were examined.¹² In spite of a sharp decrease in the level of dental caries among the children population during the last decades, high levels of oral diseases were still extant in certain population groups. Whole sections of the population remained without any sort of care. The results revealed that a mean of 14 teeth were still affected by caries during adolescence and adulthood¹³ (Graph 1).

The level of periodontal diseases was particularly high in all age brackets. Less than 22% of the adult population and less than 8% of elderly people had healthy gums. Data on edentulism in Brazil and the goals established by the World Health Organization (WHO) for 2000 are compared in Table 1.^{13,14}

The WHO goals were merely achieved in the case of 12-year-old children. Dental caries is undoubtedly an important public health issue featuring great macro-regional differences. Approximately 3 to 5 caries-affected teeth go without any treatment. Fluorosis has been detected in about 9% of 12-year-old children and in 5% of 15-19-year-old adolescents. Data on the population's access to dental services showed that over 13% of young people had never been to a dentist. This rate is lowered to 3% and 6% respectively in the adult and elderly populations.¹³ Owing to the observation of the data above, a Brazilian Health Policy started to be planned in 2003. It was meant to retrieve the right of Brazilian citizens to the provision of dental care by governmental programs, thus reversing a historical abandonment, and

Table 1 - Comparison between the WHO goals for 2000 and the Oral Health (OH) results in Brazil by 2003.

Age	WHO goals for 2000	OH Brasil, 2003
5 - 6 years	50% without any tooth caries	40% without any tooth caries
12 years	DMF Index \leq 3.0	DMF Index = 2.78
18 years	80% of the population with all teeth	55% of the population with all teeth
35 - 44 years	75% with 20 or more teeth	54% with 20 or more teeth
65 - 74 years	50% with 20 or more teeth	10% with 20 or more teeth

to follow the Brazilian Health System's principles of universality, equity, decentralization and integrality. Implementing this model required the setting up of "specialized care programs" for children, adolescents, adults and the elderly and the establishment of flows which would put into action the health team's decisions comprising data, information, care and guidance (reference and counter-reference). The patients would know the structure of the services available based on their experience as subjects included in the health process. Care guidelines would give a new orientation to the working policy, and teamwork would become one of the most important policy features. This new organization, fine-tuned with the patients' feed-back, is based on the constitutional principle of intersectionality. Furthermore, due to its potential of resolving problems, confidence links, indispensable for the improvement of health service quality and for the deepening of the humanization of practices, would be created. These guidelines represent a broadening and quality-building of basic care and enable an extended supply of services to all age groups. It also warrants the provision of care at the secondary and tertiary levels, with a view to integrating them.¹⁵

The Brazilian Oral Health Policy ("Smiling Brazil") comprises a set of activities at the individual and collective levels that involve health promotion, disease prevention, diagnosis, treatment and rehabilitation. It is developed through democratic and participation practices, employing teamwork and focusing on the populations that accept the challenge of taking care of their oral health within their region's dynamics.¹⁵

Family Health as a strategic focus for the organization of basic health care

Based on the health reform movement of 1986, discussions on the health-disease concept demanded new health activities. The development of communal and family projects and a new model for the organization of health services became viable.

The Family Health Strategy is characterized by vast ramifications as, in fact, the guidelines of the Brazilian Oral Health Policy had emphasized. Its

activities confront health professionals with the demands of the population. They are pedagogical spaces in which practice is the object of the activity and in which the situations are taken for granted. As a result, the teams learn and understand the situations in a very real way, whenever they occur. They are a privileged space for patient-health team collaboration, in which action can closely respond to reality.

As a matter of fact, 12,541 new family health teams were established from December 2002 to October 2008, with a total of 29,239 teams spread throughout the whole country. Population coverage increased from 54 million in 2002 to 93 million in 2008.¹⁶

As to the Communitary Health Agents (CHA), 54,115 agents were included between December 2002 and October 2008, totaling 229,578 people involved in this work. CHA population coverage rose from 90.7 million in December 2002 to 113,536,269 in October 2008.⁷

Oral Health within the Family Health strategy

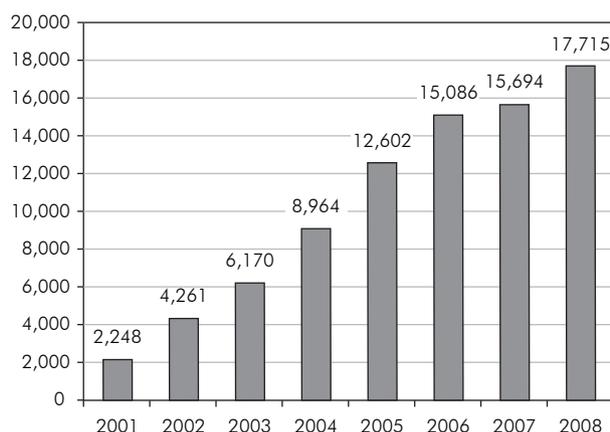
The inclusion of Oral Health in the Family Health Strategy has allowed practices and relationships which could re-orientate the working process and the activities related to Oral Health within health services. Oral Health care requires the setting up of a work team that establishes a relationship with patients. This team could then participate in service administration to meet the population's needs and to widen access to the activities and services designed to promote oral health, prevent oral diseases and recover oral health through collective measures and the establishment of territorial links.

Oral Health Teams were included in the Family Health strategy through Government Regulation (Ministry of Health) n. 1444 of December 28, 2000 to reorganize basic care and broaden the access to oral health care. In fact, it guaranteed an integrated care to individuals and families. The above-mentioned Regulation proposed a financial incentive for the reorganization of the oral health care offered by municipalities. Rules and guidelines were promulgated by Government Regulation (Ministry of Health) n. 267 of March 6, 2001, establishing two

types of Oral Health Teams:

- OHT 1, comprising a Dentist (DDS) and a Dental Assistant (DA). This modality received approximately US\$ 2,200 for setting up and approximately US\$ 5,600 per year for costs.
- OHT 2, comprising a DDS, a DA and a Dental Hygiene Technician (DHT). This modality received approximately US\$ 2,200 for setting up and approximately US\$ 7,000 a year for costs.

Each Oral Health Team was at first a reference for two family health teams, so that each OHT covered an average of 6,900 individuals. This average, however, became a restricting factor to the OHT establishment process since the demand for first-aid procedures was so high that it threatened the incorporation of the Family Health strategy in the working process of the OHT. Through Government Regulation n. 673 of 2003, the Ministry of Health started to fund OHTs in a proportion of 1 OHT for each Family Health Team (FHT). As a result, each OHT started to cover an average of 3,450 individuals. The same Government Regulation increased the incentives to US\$ 6,800 and US\$ 8,300 for yearly costs respectively paid to OHT 1 and OHT 2. Government Regulation n. 74 of January 20, 2004¹⁷ decreed new incentive readjustments, so that each OHT 1 and OHT 2 started to receive respectively US\$ 8,900 and US\$ 11,500 a year. The figures above amounted to a 56.9% increase for OHT 1 and a 65% increase for OHT 2 when compared to the 2001 and 2002 rates. Both modalities received an additional



Graph 2 - Number of Oral Health Teams throughout the years.

US\$ 2,727 for instruments and equipment. Through the above-mentioned Regulation, OHT 2 received complete dental equipment for the DHT. Government regulation 2489 of October 21, 2008 readjusted the funding to US\$ 10,364 and US\$ 13,364 a year respectively for OHT 1 and OHT 2.

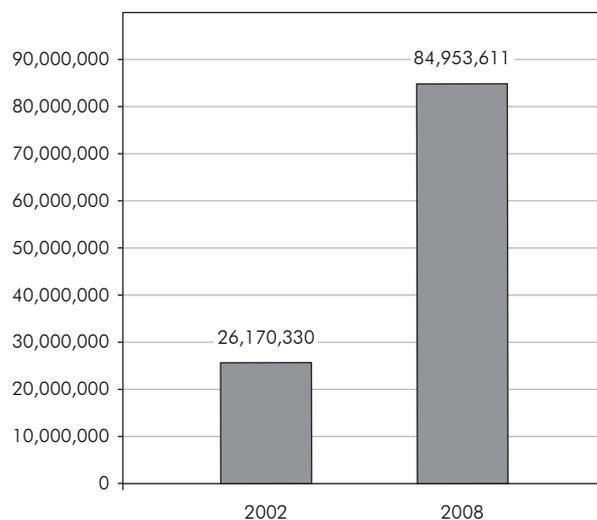
As a result, 13,454 new OHTs were established between December 2002 and October 2008 within the Family Health Strategy. A total of 17,715 OHTs were established, representing a 315% increase (Graph 2).¹⁶

An increase in the OHT population coverage of more than 58.7 million people occurred. The grand total reached 84,953,611 people covered by these teams¹⁶ (Graph 3).

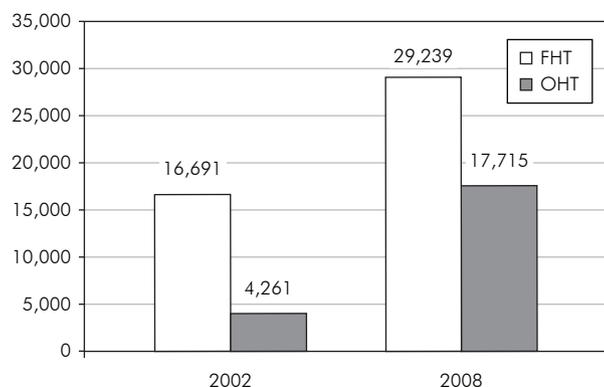
While approximately 25% of the FHTs had OHTs in December 2002, this rate reached 60.5% in October 2008¹⁶ (Graph 4).

Centers of Dental Specialists and Regional Laboratories of Dental Prosthesis

Data from the 2002 survey of the Brazilian Health System's ambulatory information show that specialized services did not exceed 3.5% of total clinical dental procedures.¹⁹ An inadequate supply of secondary and tertiary care was a fact and jeopardized the establishment of Oral Health reference and counter-reference systems in almost all



Graph 3 - Population coverage by Oral Health Teams.



Graph 4 - Comparison between the growth rates of Oral Health Teams (OHT) and Family Health Teams (FHT).

local and regional health systems. A broadening of the concept of basic care and a consequent increase in the supply of several procedures would increase access to the secondary and tertiary care levels. Through Government regulation n. 1570 of July 29, 2004,²⁰ criteria, rules and requirements were established for the setting up and registration of Centers of Dental Specialists (CDS). Furthermore, the funding of these centers was established by Government Regulation n. 1571 of July 29, 2004²¹ to increase and qualify the supply of specialized dental services. Government Regulation n. 283 of February 22, 2005²² anticipated financial resources for the setting up of these centers. CDSs are reference units for basic care integrated to the local and regional planning process. The role of secondary Oral Health care involves supplying medium-complexity dental treatment procedures and providing treatment planning to referred patients. Further treatment is then undertaken at the primary care level after the case's counter-reference. Since CDSs are ambulatory units featuring secondary Oral Health care, they should not be confused with specialized services. The CDSs' role is to supply dental procedures that are not primary care procedures within the Brazilian Health System. Besides, they are reference services, i.e., they are the system's structuring services and should not be confused with patient admittance units. The CDSs are thus the realization of the right to integral Oral Health care. Through them, the Brazilian State assumes the responsibility for supplying more complex services more extensively. They go beyond

the basic care package formerly supplied by the public system which left the supply of secondary procedures exclusively to the private sector. CDSs provide minimal periodontic, endodontic, oral diagnosis, minor oral surgery, and special patient procedures, and they were formerly classified in two types. Each CDS 1, with three dental units, received US\$ 17,400 for setting up and US\$ 2,600 a month for costs. Each CDS 2, with 4 to six dental units, received US\$ 21,700 for setting up and US\$ 3,500 a month for costs.

Government Regulation n. 1063 of July 4, 2005²³ restructured the CDSs and created the CDS 3, and Government Regulation n. 1069 of July 4, 2005²⁴ ruled that a CDS 3 would receive US\$ 36,364 for setting up and US\$ 7,000 a month for costs. Furthermore, 674 CDSs were set up in 575 municipalities up to October 2008.²⁵ Currently all Brazilian states have at least one CDS (Table 2).

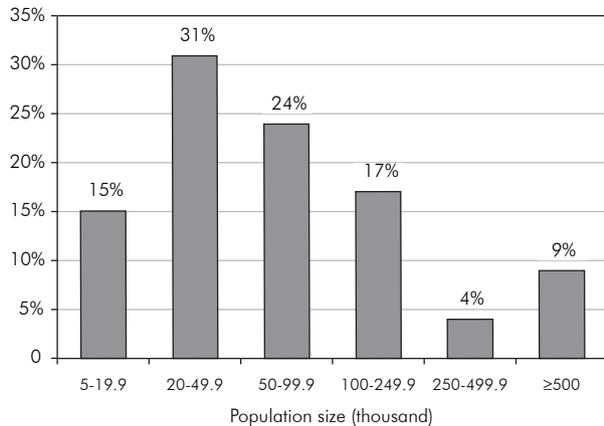
The ramification of CDSs may be perceived by the fact that 46% have been set up in municipalities with up to 50,000 inhabitants, 24% in municipalities with up to 100,000 inhabitants and 30% in municipalities with more than 100,000 inhabitants (Graph 5).

More than 17 million dental procedures were performed in the above-mentioned CDSs between January 2005 and October 2008.

Government regulation n. 74 of January 20, 2004¹⁷ included impression taking procedures for total prostheses in the scope of basic care. Financial resources have been allotted for total prosthesis procedures which may now be performed after an authorization for a high cost/high complexity procedure is obtained, up to a limit of US\$ 13 per total prosthesis. There are currently 323 Regional Labo-

Table 2 - Distribution of CDSs by macro-regions.

Macro-region	Population	Municipalities with CDSs
Central-Western region	13,501,615	33
North-Western region	15,591,792	31
North-Eastern region	52,121,727	234
South-Eastern region	79,633,696	201
Southern region	27,357,275	76



Graph 5 - Distribution of CDSs according to population size.

ratories of Dental Prosthesis²⁶ (Graph 6).

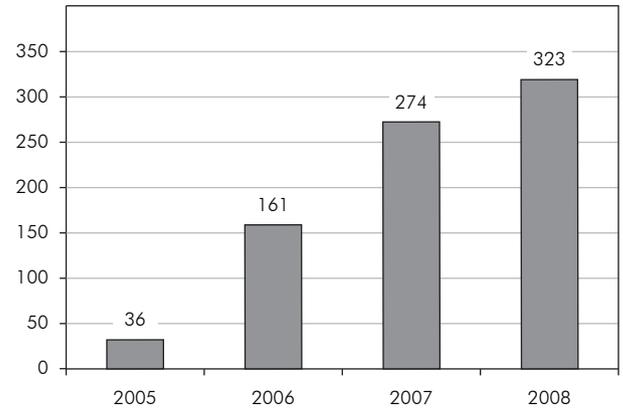
Fluoridation of the public water supply

Baixo-Guandu, ES, Brazil was the first Brazilian municipality to introduce fluoridation, undertaken by SESP in 1953, and Marília, SP, Brazil began fluoridating its water in December 12, 1956.²⁷ The third Brazilian city to do so was Taquara, RS, Brazil in October 1957. During the 1970s, approval of the Federal Law n. 6050 in 1974 was the first sign of the federal government to sanction its participation in the issue. In fact, the Law states that any water treatment station built or enlarged as of that date should have water fluoridation. A great expansion in water fluoridation occurred in the 1980s.^{28,29,30} Optimum fluoridation rate in the water supply was set at 0.8 ppm.³⁰

By 2003, more than 70 million Brazilians were supplied with fluoridated water. Since the launch of the “Smiling Brazil” policy, the setting up of 711 new fluoridation systems occurred, reaching 503 municipalities in 11 States and benefiting 7.6 million people. This feat was achieved through a joint

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Graph 6 - Setting up of Regional Laboratories of Dental Prosthesis (RLDPs).

venture with the Brazilian Health Foundation (FUNASA) and the State Health Departments.⁵

Conclusions

Implementation of the “Smiling Brazil” program in March 2004 brought together several hitherto dispersed fronts, especially with regard to aspects related to the organization and planning of oral health services. A greater participation of the federal government in policy structuring, through an increase in funding to Oral Health Teams within the Family Health strategy coupled to the implantation of services featuring medium- and high-complexity procedures and the standardization of preventive oral health activities, has allowed the setting up of a network articulated in different health care levels. The concept of integrality has been included in the planning process. The Oral Health policy in Brazil has made a structuring effort to produce intra- and inter-sectional possibilities by deconstructing the false dichotomy between the concepts of health promotion and health care, preventive activities and curative activities.

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