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Principles invoked in a population-based health policy: the case of water fluoridation in Brazil


Princípios invocados numa política intersetorial de saúde: o caso da fluoretação da água no Brasil

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Abstract

The objective was to identify principles invoked in a population-based health policy, taking as case a legislative proposal aimed at revoking water fluoridation in Brazil presented in 2003. We conducted a descriptive study through documentary research on records generated in the course of the Bill proposal No. 510/2003 in the Federal Chamber of Deputies. We highlighted discourse strategies used by the actors as per their own interests and the conflicting context by utilizing historical institutionalism as theoretical ground. The proposal was debated for 13 months, going through the House Plenary, three committees, and was finally filed. Three deputies from different parties, federal executive agencies, regulatory agencies, and entities representing dental, public/collective health, sanitary engineering, and sanitation companies participated directly in the debate in which the principles of intervention security, economic costs and the right to health emerged. Regarding the discourse strategies used, the main elements invoked in the debate on population-based health policy were: the principle of uncertainty, creating false scientific categories in order to overvalue unfavorable effects and to support the implementation of individualizing measures; and the moral principles that define different types of economic goods and dimensions of freedom associated with the exercise of rights.

Keywords: Public Policy; Health Policy; Water Fluoridation.

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Resumo

O objetivo foi identificar princípios invocados numa política intersetorial de saúde, tomando como caso uma proposta legislativa de revogação da fluoretação da água no Brasil apresentada em 2003. Realizou-se estudo descritivo por meio de pesquisa documental, na qual foram selecionados registros gerados na tramitação do Projeto de Lei nº 510/2003 na Câmara dos Deputados. Buscou-se destacar estratégias discursivas utilizadas pelos atores conforme o jogo de interesses e o contexto conflitivo, utilizando-se o institucionalismo histórico como referencial teórico. O Projeto de Lei tramitou 13 meses, passando pelo Plenário, por três comissões, e sendo arquivado. Três deputados de partidos distintos, órgãos do Poder Executivo federal, agências reguladoras e entidades representativas da categoria odontológica, da saúde pública/coletiva, da engenharia sanitária e das empresas de saneamento participaram diretamente do debate em que emergiram os princípios da segurança da intervenção, dos custos econômicos e do direito à saúde. Em relação às estratégias discursivas utilizadas, os principais elementos invocados no debate da política intersetorial de saúde foram o princípio da incerteza, criando-se falsas categorias científicas a fim de sobrevalorizar os efeitos desfavoráveis e sustentar a implementação de medidas individualizantes; e os princípios morais que definem diferentes tipos de bens econômicos e dimensões de liberdade associadas ao exercício de direitos.

Palavras-chave: Política Pública; Política de Saúde; Fluoretação da Água.

Introduction

Health determinants correspond to a variety of environmental, economic, social and personal conditions acting as causative factors in the health status of individuals and populations. This expression entered the glossary of Public Health due to the expanded concept of health, among other notions developed from a theoretical point of view, in response to the increasing awareness related to the limitations of the health services for tackling the population aging and increased morbidity and mortality associated with non-communicable diseases (WHO, 1998).

Government strategies to improve the levels of population health by coordinated action between health sector and other State sectors have received great attention recently; a variety of intersectoral policy initiatives covering aspects such as housing, water, food, work, among others, have been implemented (Freiler et al., 2013; WHO, 2011).

These initiatives involve a complex political process including actors that belong to different sectors around a health-related problem that requires the articulation of a set of shared strategies and activities. This arrangement between sectors faces important obstacles related to different political principles, moral values, conflicting agendas, competition for resources, pieces of evidence and pressure from influence groups, among other aspects (Howlett; Ramesh; Perl, 2013).

Depending on the context and the political process, the confluence of certain private interests may dismantle public regulations related to health, safety and environment. One of the strategies used is the exploitation of scientific uncertainty, questioning the quality of evidence to delay or to soften regulatory action, blocking the discussion of social values and priorities (Hoppin; Clapp, 2005).

Despite the growing awareness about the relevance of understanding the constraints that lead to decision-making in relation to policies based on public health strategies, there are no studies addressing issues of the political process nor its context (Burchett et al., 2012), including the strategies and tactics used by stakeholders (Hoppin; Clapp, 2005).

As the decision-making process is complex in the field of public policies, and decision-makers suffer multiple influences about different policy alternatives, the investigation of values underlying the discourse strategies present in the debate of an intersectoral health policy may contribute to more transparent decisions reflecting a balanced and informed consideration involving the most relevant aspects.

The objective of this study was to identify the principles invoked in a population-based health policy, examining the course of the legislative proposal to repeal water fluoridation in Brazil presented in 2003 in the Chamber of Deputies.

Methods

A descriptive study was conducted through documentary research, selecting as case the Bill proposal No. 510/2003 presented in the Chamber of Deputies of the Brazilian National Congress. This case was selected because it has a claim for the repeal of the Law No. 6,050 of May 24, 1974, which “provides for water fluoridation in supply systems when there is a water treatment plant,” an important public health technology recommended by eminent scientific, sanitary and professional institutions around the world due to their effectiveness and safety (Kumar, 2008). Although present in more than 25 countries worldwide, the majority of the population with access to the benefit lived in the USA (US-DHHSF, 2015), Brazil (Frazão; Narvai, 2017) and Australia (Manton et al., 2018), populous countries in which more than half of the inhabitants were encompassed by the measure in the first decade of the 21st century.

Similar to many countries, Brazil is a multiparty capitalist democracy. In 2008, about 80% of the population had access to treated water and 75% access to fluoridation (Frazão; Narvai, 2017). Although the country experienced a phase of growth and reduction of inequalities, its position in the ranking of social indicators remains far below in relation to its position in the ranking of economic indicators: in 2016, Brazil ranked 9th place in relation to gross national income and the 90th in relation to life expectancy at birth (World Bank, 2018).

The documentary sources of this study were the website and the Official Gazette of the Chamber of Deputies, of the Executive Branch and the Journal of the Federal Council of Dentistry. Audios, transcription of speeches, minutes of ordinary commission meetings, technical opinions and pieces of news in means of dissemination of professional entities generated during the course of the Bill proposal (between 2003 and 2004) were used to compose the material research, seeking to identify the contents and meaning nuclei related to the discussion on the proposition according to the underlying ideas, principles and institutions, as indicated by North (1991), in order to enable the interpretation of the conflicting context present in positions based on historical institutionalism, a theoretical framework that focuses on understanding the reality, the way institutions work and influence individual and collective behaviors as well as on the decision-making process over time (Lima; Machado; Gerassi, 2015).

In this sense, it was based on the premise that the values instituted have an important effect on the modelling of restrictions and opportunities that will manifest themselves in the debate of public policies directing the path to be followed in the decision-making of a public policy (Hall; Taylor, 2003; North, 1991).

Results

According to Chart 1, the Bill was maintained for 13 months. According to the House Rules, the proposal was presented to the Directing Board of the National Congress, numbered and dispatched to the Family and Social Security Commission, where it was rejected on 10/8/2003 unanimously. The Bill, after being discussed by the Commission of Mines and Energy and the Commission of Constitution, Justice and Writing, an appeal period of time was opened against the filing. The Bill proposal was filed on 04/14/2004. Three deputies from different parties, organization of the federal Executive Branch, regulatory agencies and representative entities of public/collective health, sanitary engineering, dental profession and sanitation companies participated directly in the debate.

Chart 1 – The course of the Bill proposal

March to June 2003
03/26 – Presentation by Deputy Carlos Souza to the Directing Board of the National Congress
05/01 – Publication of referral in the Gazette of the Chamber of Deputies;
05/02 – Family and Social Security Commission (CSSF) receives the matter;
05/09 – The period of time for amendments to the Bill begins;
05/12 – The period of time for amendments to the Bill ends;
05/16 – Without amendments, the matter is forwarded to the opinion of the rapporteur Deputy Francisco Gonçalves;
06/25 – Ministries of Health and Cities elaborate and disclose opinion explaining the reasons why the Bill should be rejected. Representatives of associative entities deliver the opinion to the author of the Bill and also to the rapporteur of the Bill in the Family and Social Security Commission (CSSF);
August to December 2003
08/14 – Deputy Roberto Gouveia defends the opinion of representative entities, opposing the Bill;
08/14 – Deputy Carlos Souza makes his reply, justifying and defending the matter of his authorship;
08/14 – Deputy Francisco Gonçalves, rapporteur of the Bill at CSSF, issues his opinion, voting for its rejection;
10/08 – At a meeting of the CSSF, the reading and approval of the opinion occurs unanimously;
10/15 – After approval of the opinion by the CSSF, the Bill is forwarded to the Commission on Mines and Energy (CME);
10/15 – A period of time for the inclusion of amendments to the Bill begins;
10/17 – Publication of CSSF referral in the Gazette of the Chamber of Deputies;
10/29 – The period of time for inclusion of amendments to the Bill ends;
11/27 – Opinion of the CME, authored by Deputy Eduardo Sciarra, opines by the incompetence of the mentioned Commission;
12/03 – Reading, voting and approving the Opinion of the CME unanimously;
February to April 2004
02/16 – Commission Constitution, Justice and Writing receives the Bill and its pending;
02/25 – Directing Board requests withdrawal from the CME as an integral commission of the Bill analysis;
03/02 – Publication of errata in the Gazette of the Chamber of Deputies excluding the CME from the procedure of the Bill;
03/11 – The period of time for the filing of the Bill begins, awaiting for resources;
03/19 – The period of time for appeals against the filing of the Bill ends;
04/14 – Bill 510/2003 is filed.

The excerpts from the documentary material resulting from the course of the Bill proposal can be found in Chart 2, highlighting the meaning nuclei of the narratives presented by the main actors during the process. While at one end of the debate, a strategy to underline possible harms (poisoning, osteoporosis, cancer) arising from the measure, unjustified costs,

and the defense of access to fluoride only through an individualizing approach in dental practice was observed, at the other end, the strength of existing scientific evidence in favor of the public policy, its economic advantages and its compatibility with health guidelines provided for in the Brazilian Constitution of 1988 was reiterated. In spite of the

content presented, some implicit principles focused on the intersectoral public policy debate were highlighted for the next section, including the safety

of this public health intervention, the economic costs involved, and the relationship between individual freedom and the right to health.

Chart 2 – Excerpts from the narratives of documentary material resulting from the course of the Bill proposal according to date, actor, and document

03/26/2003 – Deputy Carlos Souza (PL-AM) – Protocol to the Directing Board of the Chamber of Deputies – Bill proposal 510/2003
<p>"Water fluoridation for public supply, [...] is the result of a scientific misconception." [...] "Based on scientific studies [...] it was found that fluoridation causes far more ills than public health benefits by promoting excessive and indiscriminate fluoride intake." [...] "Fluorosis is the main disease caused by excessive fluoride intake. In addition to dental problems we have already mentioned, it causes loss of calcium in bones and early aging of people. Such effects have been widely proven in India, where well waters used for supplying several settlements contain high fluoride levels." [...] "close correlation between the increase in cases of a type of bone cancer, osteosarcoma, and fluoride intake." [...] "Water fluoridation used for public supply is economically unjustifiable, for only a small portion of it is ingested. Most of it is used for hygiene, washing floors and clothing, service activities and in the small diffuse industry in urban areas. It is much more reasonable and rational, from all points of view, that fluoride administration as preventive of tooth caries is done in a controlled manner, by qualified professionals, at the right times, in the scientifically recommended form and quantity."</p>
06/01/2003 – Ministry of Health and Ministry of Cities – Executive Branch – Technical Opinion
<p>"regrettably the Deputy had consulted neither a single dental, nor sanitation, nor public health entity, with national representativeness. Brazilian excellence in this field had simply been ignored." [...] "Law 6,050 does not support the 'high' intake of fluoride, but rather the intake of adequate fluoride levels. Those are completely different things." [...] "No respected author and no health institution [...] defended at any time this strange thesis of panacea. Far from it, the need to combine preventive and educational actions has always been stressed in integral approaches to the problem. [...] "The reasons that would have led the Deputy to say that, in the Brazilian context, early aging would be associated with water fluoridation are incomprehensible. Several publications of the World Health Organization sufficiently clarify this issue and they could easily have been consulted." [...] "research [...] developed at the request of the British government, concluded that [...] it is not possible to say that water fluoridation is positively associated with the occurrence of cancer." [...] "fluoridation of public supply waters presents both the best cost-effectiveness and the best cost-benefit. [...] a person benefited by water fluoridation throughout his or her entire life costs the equivalent of a dental restoration. [...] In Brazil fluoridation costs per year per individual the equivalent of a glass of mineral water."</p>
May/June 2003 – CFO Journal number 54 – Journal Article
<p>"the president of the Federal Council of Dentistry [CFO], Miguel Nobre, the vice president, Ailton Diogo Rodrigues, the representative of the ABO (Brazilian Association of Dentistry), Nilo Celso Pires, and the oral health coordinator of the Ministry of Health, Gilberto Pucca, delivered to Deputy Carlos Souza (PL-AM), in Brasília, an opinion signed by the Ministries of Health and Cities on Bill 510/03. The document was also delivered to the rapporteur of the matter in the Family and Social Security Commission of the Chamber, Deputy Francisco Gonçalves (PTB-MG)." [...] "The opinion expresses the contrary position of the federal Executive Branch in relation to the Bill and it was prepared with the participation of several representative entities of the dentistry segments [...], sanitation, environment and public health." [...] "The Bill goes against everything we know about the benefits of fluoride," commented the rapporteur of the project."</p>
08/12/2003 – Deputy Carlos Souza (PL-AM) – Full court of the Chamber of Deputies – Pronouncement
<p>"In Chile, for example, fluoridation of drinking water has been suspended by increased infant mortality attributed to acute toxic effects of fluoride. In addition to the evidence of increased deaths of children under 1 year of age, suspicions on malformations, increased bone fractures." [...] "Another relevant weighting is the paradox of administering an active substance to the entire population, indiscriminately." [...] "dispersing this element in unknown dosages, to the entire population, is a contradiction."</p>

continues...

Chart 2 – Continuation

08/14/2003 – Deputy Roberto Gouveia (PT-SP) – Full court of the Chamber of Deputies – Pronouncement
<p><i>“the need to maintain Law No. 6,050, 1974, which determined water fluoridation in Brazil, a public health measure that aids us moving forward in relation to the oral health of our population, particularly in the fight against dental caries.” [...] “We need to guarantee the right to health, particularly in this area, which has been developing in the past few years, along with the public health process.” [...] “But this is a very fruitful and important moment, for we are moving towards the expansion of these actions for public health, in the organization of the National Health System in our country.”</i></p>
08/14/2003 – Deputy Carlos Souza (PL-AM) – Full court of the Chamber of Deputies – Pronouncement
<p><i>“the Bill I presented in this House, following the comprehension of 14 Nobel Prize-winning physicians, that fluoride in water poisons the population.” [...] “Fluoride is more toxic than lead. And 50% of it accumulates in the human body, causing osteoporosis and increased incidence of cancer.” [...] “The needy people deserve respect, but if this justification was valid, we would have to add Buscopan to the water, to reduce the pain of 30% of women in the country who feel menstrual cramps. Today 42% of the population suffers from the incidence of violence, in which case we would also need to add bromide in the water, to reduce this violent state in people.”</i></p>
10/08/2003 – Deputy Dr. Francisco Gonçalves (PTB-MG) – Family and Social Security Commission – Opinion
<p><i>“The conclusions of a study do not always reflect undeniable truths. [...] many of the results that are disclosed should be analyzed with criticism.” [...] “This, contrary to what justification mentions, remains important throughout life, since the concentration of fluoride in saliva also protects the dentition of adults and older adults. The reduction of caries implies, in addition to savings with procedures such as extraction, restoration and rehabilitation, in the mitigation of suffering and pain. We understand water fluoridation as a basic instrument and, at the present time of our country, indispensable to promote oral health.” [...] “We believe that water fluoridation for consumption should continue to be adopted in collective supply systems [...]. Our view is that water fluoridation can be seen as an effective and safe public health measure.” [...] “Water fluoridation is considered one of the ten greatest achievements of public health, mainly for its democratic character, since it evenly covers the population, whether of any social level. In some episodes in which the addition of fluoride was interrupted, a huge increase in caries in the population was observed.”</i></p>
12/03/2003 – Deputy Eduardo Sciarra (PFL-PR) – Commission of Mines and Energy – Opinion
<p><i>“the matter dealt with by this Bill does not relate to the thematic field of the Commission on Mines and Energy.” [...] “House Rules determines that no Commission should speak on what is not specific to its attribution and that the opinion, if delivered, shall be considered as unwritten.” [...] “our opinion is for the return of that Bill, for it is not the regimental competence of this Commission on Mines and Energy to examine it.”</i></p>

Discussion

Principles invoked in the debate of a population-based health policy were identified in this study. This policy consists of an intentional action aimed at maintaining or achieving a certain level of health in the population, either by health promotion or disease prevention, or by the provision of certain health services and programs. This action is generally instituted through a normative provision that can range between more general laws regulating a country or region, and more specific rules, of local and organizational scope.

The main contribution of the case examined was to show that, despite the government having

the authority to approve or veto the application of measures that affect the population health, in democratic countries, political leaders and representatives of society play an important role in this area, relying, among others, in different community interests, of identity and market linked to certain principles. The extent and degree of any public health intervention are sustained in democratic regimes over time, according to the strength of social or cultural authority and the level of mobilization of individuals and organizations aspiring or resisting the normative provision. In a key expression, implementation and maintenance or interruption of such interventions ultimately depend on State-society relations. In times of accelerated

transformations and increasing challenges, knowing these principles is a crucial task of public health professionals (Hunter, 2010).

As every public policy, adjusting the fluoride concentration of water supply systems also expresses a way of regulating these relationships and involves multiple interests and values. In this case, the safety of the public health intervention, the economic costs involved and the relationship between individual freedom and the right to health were highlighted.

Similar to water fluoridation, several public policies have been discussed in relation to the safety of the intervention, including the iodization of salt (Pearce; Andersson; Zimmermann, 2013), immunization (Burchett et al., 2012) and even the water chlorination in the public supply system (Gopal et al., 2007).

In this study, the safety of the intervention was inquired using the artifice of associating a public health technology with a problem affecting some regions of the planet whose populations depend on water sources with naturally occurring fluoride at very high levels and unfit for human health (Chart 2). Without identifying the distinctive aspects that characterize each situation, the interlocutor can become confused. It is an artifice by which specific contexts of one situation are mixed in a completely distinct one. Knowledge from thorough research outside its original context can more easily be shifted to the campus of provisional science in order to explore sources of uncertainty, to overvalue unimportant experimental or epidemiological variations, to weaken the meanings of the results, and to disseminate doubts about the safety of the intervention. Some experts have drawn attention to the disproportionate approach as which results can be interpreted, showing the lack of understanding of the scientific method (Freeze; Lehr, 2009).

This narrative strategy has been documented in certain cases where industry-funded organizations have defied thorough pieces of evidence that demonstrated links between exposure to something and disease in humans. Non-explicit interests could manipulate science and create false categories to influence decisions that affect the lives of the

population that relies on intersectoral policies related to public health and environmental regulations (Hoppin; Clapp, 2005).

In relation to fluoridation of water supply, the debate tends to assume a bipolar form, treating this intersectoral policy sometimes as an advantage recognized by its strength as preventive health measure, sometimes as a disadvantage, claiming that it would be a toxic pollutant to the human body and to the ecosystem (Mendoza, 2011). The examination of systematic reviews published between the years 2000 and 2009 showed that water fluoridation between 0.6 and 0.9 mg F/L is effective for caries prevention and it is safe for human health, with fluorosis being an alteration characterized by the hypomineralization of tooth enamel, the only undesirable effect resulting from this measure (Frazão; Perez; Cury, 2011).

Undesirable effects may be present in any public health policy. One of the discourse strategies used by certain economic agents is the overvaluation of the unfavorable aspects of a regulatory policy to favor the establishment of individualizing measures that can be transformed into merchandise.

As there is a strong tendency to assume that the primary solution of health problems involves individual medical care, policymakers often focus on measures to ease obstacles to financial and geographic access to personal services of the most vulnerable population groups. Depending on the economic viability, extent, and depth, such approach may produce health gains, but generally it neglects the main social and economic causes of vulnerability and health inequalities. Although access to individual care is a necessary component, intersectoral actions on health determinants are essential to raise the population's health levels (Lantz; Lichtenstein; Pollack, 2007).

Thus, all attention should be focused on the data and information brought to the debate and on the effect that the interruption of such health policy could generate on the population or its portion that benefits most from it. This aspect is more visible with the idea that water fluoridation would be economically unfeasible, bringing a burden to the government, whose resources could be directed to other actions. This narrative strategy is supported

by the defense that preventive actions using fluoride should be individual and clinical, i.e. individuals should have access to topical fluoride applications and procedures concerning oral hygiene orientation through dental appointment. Thus, implicit to the argument of the proposition contrary to fluoridation, one can perceive the idea of transforming a semi-public good, such as supply water adjusted for dental caries prevention purposes, which provides access to fluoride to all families using the treatment network, in a very cost-effective way (Ran; Chattopadhyay; Force, 2016), something good whose access would depend on dental appointments.

Unlike private goods, such as a car that is paid by a single consumer, excluding others from using it, fluoridation of water supply can be considered a semi-public good, as the costs of provision for an additional consumer are insignificant (the additional cost for new housing supplied is insignificant) and no individual is excluded from their consumption, and some can even make use without paying for it (Mendoza, 2011).

The economic issue is also relevant in the debate of other population-based health policies, such as immunization (Burchett et al., 2012; Tapia-Conyer et al., 2013), enrichment of foods with vitamin A (Jallier et al., 2013) and the iodization of salt (Pearce; Andersson; Zimmermann, 2013). While in such cases, all the effort has been focused to find funding sources to expand the coverage of these policies, in the case of the proposal to repeal water fluoridation, the intention was to condition access to the purchasing power of each one, i.e. the ability to access consumer goods in a business environment, ignoring the evidence about the cost-benefit of this public health policy. About \$32 per inhabitant was saved due to fluoridation in the U.S. in 2013 (O'Connell et al., 2016). In Brazil, fluoridation costs are also extremely low compared to any other intervention alternative (Frias et al., 2006; Martinez et al., 2013).

This narrative strategy relates to the principle of the right to health. While in one end of the debate this principle is translated as an individual right of access to dental services for fluoride applications in a controlled manner at the outpatient level, in the other end of the debate values related to the

expanded concept of health and their implications of the right to health predominate, supporting the scope and effectiveness of the public health strategy, including to reduce the need for outpatient dental care.

Thus, underlying the defense of individual freedom, would be the option for promoting policies of economic liberalization that would favor the accumulation of wealth and the concentration of ownership of goods whose effect is the deepening of social inequality, and by the denial of health as a sphere for the exercise of rights.

The debate seems to reflect the dispute between the two conceptions of freedom. On the one hand, the negative concept of freedom that is associated with civil rights and classical liberalism, i.e. the notion that the State should not interfere with the freedom and property of citizens, whose interests must be considered legitimate provided that it does not threaten the rights of other citizens. On the other hand, the positive concept of freedom associated with political and social rights, the freedom to participate in the government, to deliberate and to supervise the allocation of public resources (Bresser-Pereira, 2002).

For some political actors, these conceptions rival each other, while for others they are complementary to each other. Those who position them in opposing poles consider individual rights more important than political and social rights, as if the liberal citizen protecting his own interests and the republican citizen protecting the general interests does not represent two interdependent dimensions of the same statute. In the most extreme conception, it is not recognized that individual rights can only be guaranteed within a society in which collective action is effective in the creation of liberal and democratic institutions that ensure both their application and collective rights, which are also the rights of each individual citizen.

In this bipolar view, population-based health policies are falsely portrayed as a choice between individual responsibility versus the restriction of freedom. Consequences on population's health resulting from the omission of health authorities are not seen as a regulatory option. It is as if the absence of a cigarette-free workplace is not considered a

political decision that engenders greater exposure of workers to carcinogens and increased risk of acute myocardial disease (Chokshi; Stine, 2013).

Overcoming this bipolar vision and recognizing both the rights that protect citizens against a powerful State and the rights that protect the State against powerful citizens are also a crucial task for health leaders in the important and legitimate debate on the appropriate role of regulatory approaches to improve the health of populations. By covering both dimensions, the Universal Declaration of Human Rights is an important instrument for guiding such decisions.

In the United States, where more than 70% of the population benefits from the public policy, lawsuits in U.S. appeals courts for the interruption of the water fluoridation have been denied for many reasons, including the justification that the Articles of Incorporation for the institution of fluoridation are valid state regulatory exercises. Private rights are not absolute and must be modulated in the name of collective objectives legitimately acquired and related to the means of law enforcement (Mendoza, 2011).

In a view in which rights complement each other, fluoridation would not violate individual rights of choice for it is an element that is naturally present in surface and underground springs. Water, when captured and treated, has its content adjusted for the concentration considered optimal in the prevention of dental caries at levels below the maximum permitted value considering its potability. On the contrary, not promoting such adjustment, it may increase the risk of new dental caries injuries, especially among the most numerous social segments and worse socioeconomic conditions. Values concerning collective rights would boost the approval of rules in favor of the most numerous social segments which are excluded and present worse socioeconomic conditions. Because it constitutes a safe, inexpensive, effective and comprehensive public health measure, its implementation should express the collective decision associated with the exercise of the right to health as a universal human right.

In this study, three principles were identified and discussed in the debate of a population-based

public policy grounded on the investigation of the procedure of the Bill proposal 510/2003, which proposed the repeal of water fluoridation in Brazil. Although the limits between the phenomenon and its context are not clearly defined, and the design does not enable the generalization of the conclusions, it is known that the study may be useful for understanding the scenario of tensions and disputes around the values involving initiatives of regulatory health policies in countries of multiparty capitalist democracy.

In relation to the discourse strategies used, we concluded, based on results presented, that the principle of uncertainty - creating false scientific categories in order to overvalue the unfavorable effects and sustain the implementation of individualizing measures - and moral principles - which define different types of economic goods and dimensions of freedom associated with the exercise of rights - were the main elements invoked in the debate on population-based health policy.

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Authors' contribution

Frazão conceived and supervised all stages of the study. Neto searched, identified, selected, organized and extracted documentary data. Both authors interpreted the results and drafted the article.

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