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Regulatory Aspects of (Non)Humanized Normal and Cesarean Deliveries in Brazil

Vitória Batista Santos Silva[1], Wagner Roberto Ramos Garcia Junior[1], Clayton Vinicius Pegoraro de Araújo[1], Gabrielle Jacobi Kölling[2]

[1]Social and Applied Sciences Center, Mackenzie Presbyterian University, São Paulo, Brazil
[2]Department of Law, Complexo Educacional Renato Saraiva, Recife, Pernambuco, Brazil
Email: vit_batista@hotmail.com

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Abstract

The topic of humanized childbirth has been gaining a place among the interests of Brazilian health researchers. Concern over the preference for cesarean deliveries is leading to an increasingly present discussion also in international bodies that provide guidelines to health sectors. This research aims to gather some of the main reasons leading to the choice of cesarean delivery over normal delivery in Brazil, under the scope of the National Supplementary Health Agency (ANS) regulation. To this end, recent studies on the economic impacts of these delivery modes will be reviewed, as well as an analysis of recent literature on the reasons leading to the choice of a delivery mode. The legal aspects of ANS regulation of the delivery segment will be presented, seeking to understand the main aspects of this activity. Throughout the article, some data regarding the percentage of normal deliveries and cesarean sections in the period 2000 to 2018 will be explained in order to illustrate the scenario of this segment in Brazil. Through a qualitative method, bibliographic research and document analysis, government measures such as the Suitable Childbirth Program and the Careful Childbirth Project will be explored, presenting what are the main measures implemented in the search to reduce the unnecessary number of C-sections in the country, as well as their correspondence with measures recommended by the World Health Organization (WHO), which exposes the increase in the number of C-sections as a global concern. The discussion brings some initiatives of the regulatory agencies of the sector in Brazil and recommendations to contribute to the formulation of public policies aimed at stimulating the percentage of normal deliveries. It was possible to identify in the literature factors such as economic conditions and the mother's educational level as related to the choice of type of delivery, as well as the medical team's participation in the decision.

Keywords

ANS, Suitable Childbirth Program, Childbirth Care Project, Normal Births, Cesarean Sections

1. Introduction

In Brazil, according to the most recent data released by the Ministry of Health (2017), about 55.5% of births performed in the country are cesarean sections. Considering the domestic scenario and the global context, it is possible to observe an increase in the number of cesarean deliveries in the world over the last few years, while data from the World Health Organization (WHO, 2015) indicate that the cesarean rate in a population should be around 10% and 15%. Thus, it is relevant to think how regulation in health services influences the rate of cesarean deliveries and normal deliveries.

Recently, the regulatory agency of sector, National Supplementary Health Agency (ANS) showed a concern about the high number of cesarean deliveries, trying to estimate the real percentual of normal and cesarean deliveries, as a type of regulation, with the goal of avoiding the unnecessary cesarean deliveries, though the Normative Resolution 368 (Dufour, 2015).

In this context, the aim of this study is to explore how the regulation of health services performed by the ANS influences the percentage of normal deliveries and cesarean sections in Brazil, trying to identify which criteria health plans and the Brazilian Unified Health System (SUS) use to encourage each delivery modality. Regarding to regulation in the Health sector, the database about the deliveries—normal and cesarean—has been analyzed, showing the evolution of each one of these modalities of delivery. In this scope, the paper aims to show the recent effort to control the excessive number of cesarean deliveries, that could have been avoided.

The method used in this research consists of analyzing the ANS measures that have had the greatest impact on the delivery segment, with the intention of increasing the number of normal deliveries performed, as was the case of the 2018 Suitable Childbirth Program. By analyzing the measures put into practice by the agency, it will be possible to evaluate how normal birth has been encouraged, and verify whether the measures are being efficient. It will be possible to contribute to the discussion regarding how the normal delivery modality can be encouraged to the detriment of cesarean delivery. Thus, this is a qualitative research, based on documentary and bibliographic analysis on the subject mentioned, with the aim of contributing to the theoretical field.

To carry out the research, data from the ANS and the Ministry of Health will be used, including bases such as DATASUS, for the period from 2000 to 2018, in addition to a review of existing literature on the topic. The paper is structured in five sections, in addition to this introduction and the final considerations. The

first one brings a literature review about the reasons that lead to the choice of the type of delivery to be performed, either by the mother or the doctors. Next, the role of the ANS in the delivery segment is explained. The types of incentives and regulation of childbirth in the country are also discussed. The discussion presents some data and illustrates the current scenario of the segment in the country. Finally, there are the final considerations. It is hoped that it will be possible to contribute to the discussion on the regulation of health services in Brazil in the delivery segment, bringing to light some aspects of the ANS' role in the regulatory arena.

2. The Choice of Type of Delivery: A Review of Recent Literature for Brazil

The understanding about humanized childbirth considers that surgical intervention should only occur when there is a problem during pregnancy or at the time of birth that prevents the mother and/or baby from enjoying full conditions for a normal birth. The Programa de Humanização do Pré-natal e Nascimento (PHPN) (Prenatal and Birth Humanization Program) started in Brazil in the year 2000, and dealt precisely with the inclusion of humanization in childbirth procedures, including, besides the aforementioned surgical intervention only when necessary, the search for the guarantee of an adequate prenatal follow-up, providing assistance for the baby's and mother's health (Ministry of Health, 2002; Ministry of Health, 2000).

> Humanization comprises at least two fundamental aspects. The first concerns the conviction that it is the duty of the health care units to receive with dignity the woman, her family, and the newborn. This requires an ethical and solidary attitude from health professionals and the organization of the institution in order to create a welcoming environment and to institute hospital routines that break with the traditional isolation imposed on women. The other refers to the adoption of measures and procedures known to be beneficial for the monitoring of labor and birth, avoiding unnecessary interventionist practices, which although traditionally performed do not benefit women or the newborn, and often carry greater risks for both (Ministry of Health, 2002: pp. 5-6, our translation).

The interpretation of childbirth as a human issue takes into account a number of factors beyond the health conditions of the mother and child at the time of birth. It is necessary to consider the mother's wishes—or the family's wishes if they are not in a position to decide—observe the mother and baby's health history since the beginning of pregnancy, the prenatal care, the infrastructure conditions in the hospital where the birth will take place, among others. In addition, the decision between a normal delivery and a C-section has an economic impact, and is an issue that deserves attention from health regulators.

The cost to the Unified Health System (SUS) of performing cesarean sections without necessarily having a clinical indication is explored by the study of En-

tringer et al. (2018). Through a statistical analysis, a projection is made for the number of live births for the period from 2016 to 2020. A reference scenario was constructed, which considered 29% excess cesarean sections performed by the SUS, and three other scenarios, which would be respectively: Scenario 1 (optimistic) with 0% excess cesarean sections at the SUS; Scenario 2 (intermediate) with 26% excess cesarean sections at the SUS; and Scenario 3 (worst case scenario) with 30% excess cesarean sections performed at the SUS, with the choice of percentages guided by guidelines from the Ministry of Health. It was possible to observe that reducing the number of unnecessary cesarean sections for the year 2016 would generate savings of US$76.5 million for the same year. Considering the values obtained in the five years analyzed, the reduction of unnecessary cesarean sections could generate accumulated savings of up to US$400 million.

Among the factors that contribute to the increase in cesarean rates in the country, one can mention the socioeconomic status of women. In general, there is a predominance of cesarean deliveries in private hospitals, when compared percentually to public ones. For the year 2016, the birth rate by cesarean deliveries stood at 42% in public hospitals, while in private hospitals this rate was 86% for the same year (Magalhães et al., 2019).

The study of Nakano, Bonan and Teixeira (2015) are explored some cultural aspects that lead women to choose cesarean section, among them the fact that women already decide by cesarean section even before they become pregnant, because they consider a safer and less stressful way for the birth of their children. In addition, the existence of some risks or a family history of mothers, grandmothers, and aunts who were not satisfied with the experience of a normal birth also influences the mothers' decision. The medical refusal to perform a cesarean section was hardly reported.

This relationship between cultural and emotional factors in determining the pregnant woman's choice of a normal delivery or cesarean section is also investigated in the research of Bittencourt, Vieira, and Almeida (2013), who conducted a study with 20 pregnant women who were assisted in two Basic Health Units in the city of Toledo, Paraná, in the first quarter of 2012. The characteristics of the pregnant women consisted of being over 18 years old, who did not present any pre-existing pathology. The results indicated that fear of labor pain and family influence were the main factors that motivated the choice for cesarean section. It is posited that the education of the future mother through prenatal care can be an aspect that can contribute to alter preferences for the type of delivery.

In addition to the factors mentioned such as cultural characteristics, emotional aspects of the mother and the people who live with her, the educational background, and even the mother's health status during pregnancy, it is also possible to identify in some cases the ignorance about the real risks and benefits that may be the consequence of a cesarean section, as well as the result of the choice of health professionals with whom women monitored their pregnancy (Pelloso, Panont, & Souza, 2000).

It is possible to observe the issue of the relationship between childbirth being performed in private hospitals and the cesarean section rate also in the article by Oliveira et al. (2016), which analyze the factors that influence the number of cesarean sections in Maringá, Paraná, taking into account financial factors, in the period between October 2013 and February 2014, counting on a sample of 920 women, of whom 485 had their births in public hospitals and 435 in private hospitals. The results of the survey indicate that more than 90% of births in private hospitals were C-sections, against 55.5% of C-sections in public hospitals.

The study by Yazlle et al. (2001) also corroborates this relationship between higher rates of cesarean deliveries in private hospitals, and somewhat lower rates in public hospitals. Data were collected for 86,120 births in all hospitals in the São Paulo municipality of Ribeirão Preto from 1986 to 1995. It was possible to identify that the cesarean rate in private hospitals increased from 68.3% to 81.8% during the analyzed period, and in public hospitals the rate increased less, from 69.1% to 77.9%. Still, both cases show that cesarean rates have been high for many decades in Brazil. Taking into account the factors that lead to cesarean deliveries, no relationship was found between higher health risks for the mother and/or the baby as a justification for the increase in cesarean sections, but there was a significant relationship between higher financial status of mothers and higher preferences for cesarean sections.

However, although opting for cesarean sections may seem like a rule, there are some studies that contradict this perspective. In the article by Silva, Prates, and Campelo (2014), a survey was conducted with 12 pregnant women over the age of 18 at a health care facility in Juazeiro, Bahia. The results showed that most women opted for normal delivery, for reasons such as faster recovery after delivery.

With a relatively larger sample, the study by Melchiori et al. (2009) investigated the opinion of 40 pregnant women who were experiencing their first pregnancy, aged between 14 and 38 years, and also identified that 75% of them opted for normal delivery for the same reasons mentioned in the study by Silva, Prates, and Campelo (2014), which can be summarized as the desire for a faster recovery for both mother and baby.

In this sense, Velho, Santos, and Collaço (2014) bring an important contribution by illustrating the factors that are associated with the choices made by women when choosing the type of delivery. When interviewing 20 women whose deliveries were performed in some hospitals in the city of Florianópolis, capital of Santa Catarina, it was possible to identify by the reports that in many cases normal birth is not an option, as a result of the mothers' health conditions. In addition, the positivity of feelings in relation to normal birth was highlighted, while the cesarean section has as one of its attractions the physical advantages.

Addressing the relationship of the type of delivery with the economy, Gibbons et al. (2010) estimated that in 2008 the additional cost in cesarean deliveries that occurred without necessity were, worldwide, $2.32 billion, while the expenditure on necessary cesarean deliveries in the same year would be $432 million. A re-

cent study by the WHO (2018a) shows that the increase in the rate of C-sections should be a global concern, since the consequences of C-sections include harm to the health of the mother, the baby, and enables complications in future pregnancies.

In the specific case of Brazil, one can cite the study by Dalmoro, Rosa, and Bordin (2018), which estimates the cost of the Unified Health System (SUS) with normal births and cesarean sections. An analysis was conducted of the data available in DATASUS, which is the health data system in Brazil, for the year 2015. The results show that for all regions the number of cesarean deliveries was higher than what is recommended by the WHO, and if these goals were followed, the savings for the country at that time would be R$57.7 million.

Thus, it is possible to verify that financial factors appear directly related to the choice for a particular delivery modality, since private hospitals and mothers opting for cesarean sections are positively correlated. Even considering the mother's education and adequate prenatal care, emotional, cultural, and family factors often strongly influence the pregnant women's decision. Furthermore, there would also be savings for the health sector the lower the cesarean rates.

3. Legal Aspects: The Role of ANS in the Delivery Segment in Brazil

The protection of maternity, the right to life and the rights of the unborn child are constitutionally protected legal devices and have unchangeable status in the Brazilian legal system. Moraes (2002) points out that the right to life is certainly the most fundamental of all rights, since it is a prerequisite for the existence of all other rights. In this sense, it should be noted that the Federal Constitution protects not only the right to maternity, but the conception of life in broad sense—encompassing uterine life.

The recurrent discussion about humanized childbirth and the fierce clashes between vaginal delivery and cesarean sections have gained notoriety in recent years. The recurring theme has gained space in the media, government agencies and even the ANS. In this scenario, in 2015, an important regulation called Normative Resolution 368 established the obligation of all health plans to pass on data from all deliveries performed by doctors and their affiliated institutions to the ANS (Dufour, 2015).

This measure was imposed due to the high number of cesarean deliveries performed in Brazil, which caused a kind of alert in the regulatory bodies related to Brazilian public health corroborating the data that show that Brazil exceeds the limits recommended by the World Health Organization regarding the performance of cesarean deliveries in underdeveloped countries (Dufour, 2015).

As already mentioned, according to the WHO, the recommended percentage of cesarean deliveries is 15%. However, Brazil has much higher numbers than recommended. It is found that the cesarean procedure, in the period between

2011 and 2012, occurred in 52% of the care provided in the public health system and 88% in the private sector (Fiocruz, 2014). To get an idea, the data made available by the ANS regarding health plans in 2013, a period closer to that discussed in the study at Fiocruz, indicate that the rate of cesarean deliveries in Brazil was 84.5% (ANS, 2013).

As shown in the aforementioned data, Brazil exceeds the limit of what is reasonable, neglecting the recommendations listed by international entities. The preference for cesarean delivery over normal delivery is driven by several factors and subjective criteria, as discussed in the previous topic. However, the issues raised so far indicate that there is a kind of conflict of interest in the indication of cesarean delivery, since "this modality allows obstetricians to organize their personal and professional agenda and increase the number of patients seen" (Silva et al., 2019: p. 6, our translation)—realizing higher remuneration as a consequence.

The Federal Constitution of 1988 consecrates the universality of the right to health as well as the dignity of the human person—it is an immeasurable social and economic advance in the Brazilian reality, although it is basic in any civilized and developed country. The core of the discussion about the dignity of women and child protection are already taboos in the Brazilian social reality, given the social problems about poverty, inequality and economic underdevelopment that prevent the basics from reaching the most vulnerable population. In this sense, the social view of the regulation imposed by the ANS, as well as the criteria adopted by health plans and obstetricians must go through the constitutional sieve and preserve the health and safety of the mother and the unborn child. Thus, it is salutary to affirm that, from a legal point of view, economic interests do not override collective interests, especially when the latter includes the protection of maternity and the right to life.

4. Regulatory Characteristics of the Delivery Segment in Brazil

The ANS has been encouraging normal deliveries for a few years now, basing its argument on the high rate of cesarean sections in Brazil. One of the first initiatives aimed at reducing the rate of cesarean sections was the promotion of events and lectures with experts on the subject, expanding the possibility of reliable information on the subject, demonstrating the advantages of performing normal deliveries, in addition to the preparation of booklets with information for pregnant women regarding the recovery aspects and procedures for normal deliveries and cesarean sections (ANS, 2015).

Later, in 2007, an indicator was formulated to express the rate of normal deliveries per health operator, through the Qualification Program. Subsequently, in 2008 the movement Parto Normal está no meu Plano (Normal Birth is in my Plan) was launched, also aiming to inform about the disadvantages of unnecessary cesarean sections and the advantages of normal birth (ANS, 2014).

Among other initiatives with the participation of the ANS, it is also worth mentioning the Rede Cegonha project, released in 2011 by the Ministry of Health, which had as one of its ambitions a greater humanization of childbirth, bringing to light a number of concerns with the care provided in prenatal care, with regard to the health of the pregnant woman and the baby. In the study by Pasche et al. (2014) the various aspects present in the Stork Network project are explored, and it is explained that the cesarean section is seen as more convenient for many health professionals because it does not bring the unpredictability contained in normal deliveries.

Using today the slogan "Childbirth is Normal", the agency has been disseminating some initiatives since 2004 with this purpose, and one of them is the Suitable Childbirth Project, which was launched in 2015, and brings up the discussion about the reduction of cesarean deliveries in Brazil, through innovation in the current models of normal deliveries, in order to increase the appreciation of this modality and seek greater adequacy in relation to the levels of cesarean sections most accepted worldwide. The project was initially developed together with Hospital Israelita Albert Einstein (HIAE) and the Institute for Healthcare Improvement (IHI) (ANS, 2020a).

The first phase of the project included 35 hospitals and 15 health plan operators, and took place between 2015 and 2016, with the goal of making an initial verification of what the reasons and conditions were for deliveries to occur, in order to understand how feasible the project would be. Then, between 2017 and 2020 the second phase is characterized, then with 108 hospitals and 60 health plan operators. In this second phase, 20,000 C-sections have already been avoided. The third phase aims to expand the scope of this initiative, further reducing the number of cesarean sections (ANS, 2020a).

Some of the measures put into practice through this project are to improve the dissemination of information for pregnant women, seeking to raise awareness about the advantages and disadvantages of each of the delivery modalities, in addition to conducting the so-called partogram, which details the conditions of mother and baby, and the pregnancy history for each woman in order to identify, for example, if there is the presence of risk factors in pregnancy that may influence labor. According to a study by Rocha et al. (2009) the partogram plays a very important role in determining the moments in which there should be an intervention in labor, and also in determining its modality.

The large number of cesarean deliveries in Brazil is due to incentives—which are subdivided into two groups: financial and non-financial incentives. With regard to financial incentives, its configuration is perceived in terms of direct remuneration of the medical team, since cesarean deliveries are more remunerated than normal deliveries (Dufour, 2015).

Moreover, still in the spectrum of financial incentives, there is the incidence of indirect remuneration, which occurs by the number of cesarean procedures performed—whether by a private hospital, health plan or SUS—in less time than a normal birth. In practice, this means that while a normal delivery procedure

lasts hours, it is possible to perform some cesarean procedures in the same period of time optimizing time with compensation (Dufour, 2015).

Finally, there is the incidence of non-financial incentives—those that are not tied to the remuneration or economic gains of the team or the medical institution. Non-financial incentives are linked to unscientific beliefs that cesarean delivery is safer, more hygienic and efficient than a normal birth. These beliefs are not empirical, but they inspire confidence in the woman and influence the demand for more cesarean deliveries (Hopkins apud Dufour, 2015) (**Table 1**).

There is also the inference of causes of subjective order, that is, personal criteria that influence the routine of the obstetrician who performs the procedure (Marques, 2019). From a social point of view, the woman's freedom of choice should be an immutable principle in decision making. However, what often prevails is medical opinion—however much it is based on individual and subjective criteria of the obstetrician.

Regarding regulation, it is pertinent to point out that there are countless ordinances and procedures to be adopted in the Brazilian health system by both ANS and ANVISA—regulatory agencies that determine the operation of public health in the country. As costly, bureaucratic, and burdensome as it may be, health regulation has a fundamental role in the realization of social rights related to health and its universalization. The role of regulation is to safeguard the public interest and protect the population with regard to the so-called essential activities that preserve the well-being and quality of life (Marques, 2019).

The general guidelines about cesarean delivery are established by the general rules of the National Supplementary Health Agency, specifically in Normative Resolutions: RN 368/2015, RN 387/2015 and RN 398/2016. The first RN deals with access to information on the amount of normal and cesarean deliveries; the second RN established as a guiding principle the incentive to normal birth; and the third RN deals with the obligation of health professionals to inform the pregnant woman about the dangers and risks of both cesarean and normal birth (Marques, 2019).

It is also pertinent to point out that health regulation is also about greater control of market agents. Economic activity is lawful in the health market; however, to avoid abuses, government intervention is present. The purpose of the

Table 1. Financial and non-financial incentives for cesarean delivery.

FINANCIAL INCENTIVES	NON-FINANCIAL
Direct remuneration = remuneration for cesarean delivery is higher than for vaginal delivery.	Unscientific belief that cesarean delivery is safer than normal delivery.
Indirect remuneration = the time required for a vaginal delivery is much longer than for a cesarean delivery. It is possible to perform more cesarean procedures in the same length of time of a normal birth.	Arguments that affect the emotional structure of the woman leading her to choose a cesarean delivery.

ANS is to preserve the public interest and harmonize the interests of the market players, especially when it comes to imposing limits on the great economic power of the health plans. When harmonizing the interests of private plans, consumers, and stakeholders, the need for transparency and clear rules is essential. Bagnoli (2017: p. 257) points out that the ANS "seeks to promote balance in the relationships between these segments in order to build, together with society, a solid, balanced, and socially just market. However, the data show a certain distortion with regard to the balance proposed by the regulatory agency. It is reiterated again: more than 80% of births performed in the country are cesarean sections contrary to the ANS" own guidelines, which show a failure in its regulatory aspects.

For Marques (2019: p. 26, our translation) although the purpose is focused on the regulation of health plans, "the scope includes quality aspects of the service providers to which it seeks to attend through supposedly inductive policies, influencing the way services are provided in this segment". In this scenario, the ANS' scope of action in the regulation of health plans is classified into four major dimensions: economic, care, structure, and operation (Marques, 2019) (**Figure 1**).

Among these four aspects of regulation, the one that demands more complexity is the health care aspect, since the guidelines and regulations of the service provider are outside the scope of the ANS. The definition of most of these legal guidelines that determine the field of actions to be adopted is elaborated by the health plans themselves—mainly in what concerns the reduction of their costs in detriment of a higher standard of quality (Marques, 2019).

Another controversial criterion concerning the ANS consists in the political criteria for the constitution of its board of directors. In the legal sphere, the Federal Constitution provides that the position of director of a regulatory agency is by mandate—with the intention of giving management autonomy to the occupant of the position, regardless of external political crises. Because it does not

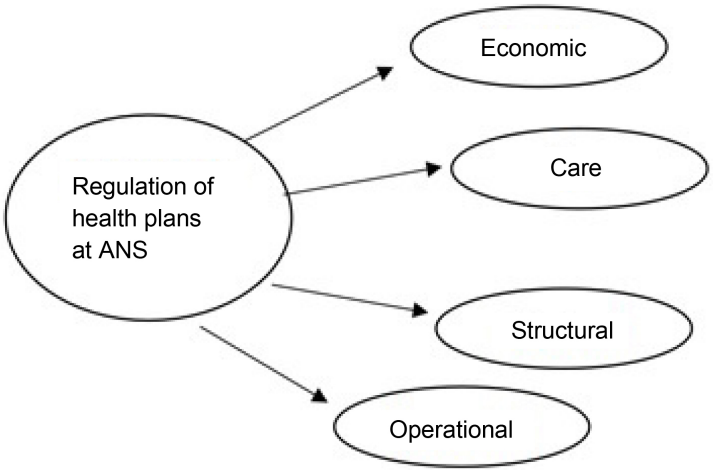


Figure 1. Scope of actions from ANS in the regulation of health plans. Adapted from Marques (2019).

follow a technical criterion, i.e., by means of a public contest and proof of titles, discretionary and shady criteria unfortunately prevail. In this scenario whose political incidence is enormous, the management positions are filled through political appointment by the President of the Republic—and the possibility of capture becomes evident—given the strong power of influence and lobbying that large corporations and economic agents of health plans gain by appointing their representatives.

It is not uncommon, therefore, to observe the history of some directors and occupants of ANS management positions being senior executives of health plans that edit norms of conduct in the market (Marques, 2019).

Regarding the economic aspects present in the regulation of the delivery segment in the country is an element common to other branches served by the health area as well, which is asymmetric information. This market failure can be observed when information is provided to the health insurance plan by those who are hiring it, and vice versa. Godoy, Silva, and Balbinotto Neto (2004) explore the presence of asymmetric information and the health market, in addition to discussing the issues of moral hazard and adverse selection present in this market, both problems intrinsically related to the exchange of information between those who contract a health plan and the health insurance company.

The results of the study by Godoy, Silva, and Balbinotto Neto (2004) indicate that the actions of ANS until then were not necessarily contributing to the reduction of uncertainty on the part of users of health plans, because the prices of health plans are determined by the age of the contracting party, and not by the degree of risk presented by each individual, which can cause adverse selection, that is, make users pay an average amount that covers the costs related to who is more or less likely to use the services of the plan.

5. Discussion

The method of this work consists of a bibliographic research and a documental analysis about the reasons that led to a reduction in the number of normal deliveries in relation to an increase in the number of cesarean sections, having as scope of the research the regulation of this health segment by ANS.

To answer the proposed question, we will analyze data available in Datasus and on the ANS website that can contribute to the discussion on how the percentage between normal deliveries and cesareans is regulated in Brazil, explaining what leads to the choice of a given modality. This section presents some data about the delivery segment in Brazil, and tries to relate them to the content of the studies already mentioned.

In the graph below it is possible to visualize the evolution of the number of live births according to modality, considering the period between 2000 and 2018, coinciding the year 2000 with the year the ANS was created through Law No. 9.961/20 (2000). It is possible to see that there was a decrease in normal deliveries in Brazil, which was accompanied by an increase in cesarean deliveries.

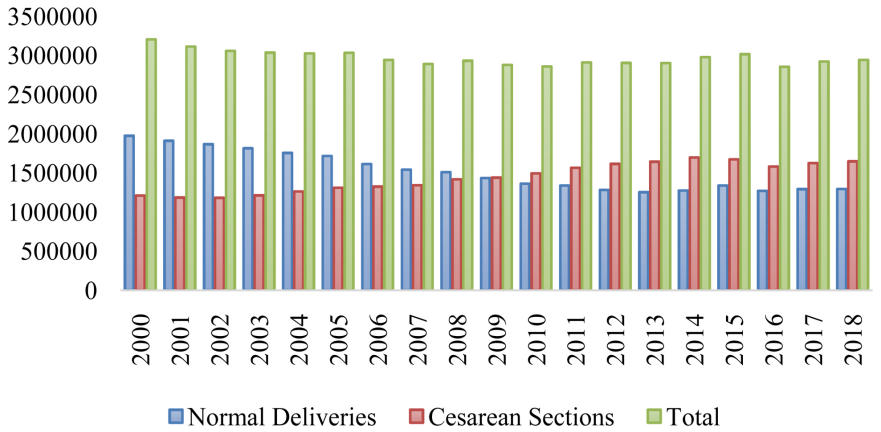
These data help illustrate that even with incentives from health agencies for normal deliveries, there is still a predominance of cesarean sections over normal deliveries.

Observing the data in the chart, it is pertinent to better understand which factors have encouraged cesarean sections in the country, since it is clear the reversal that has occurred over the past two decades regarding cesarean deliveries, something that was explored in section 1 of this paper.

Analyzing the data provided by health insurance companies regarding cesarean rates in 2018, it is possible to calculate a simple average of the percentages of cesarean deliveries according to the size of the company. Analyzing small-sized operators, it is possible to observe a rate of 86.08% of cesarean sections; for medium-sized operators, an average rate of 86.26% of cesarean sections is observed; and for large operators, a rate of 86.38% (ANS, 2020b). These data show that, at least in the private health network, the percentage of cesarean deliveries is still very high.

An interesting aspect that can be noted from **Graph 1** is that in the public health network there is a better balance between the rate of normal deliveries and cesarean deliveries, which may indicate an effect of the actions taken by the Ministry of Health to reduce the relative number of cesarean deliveries, which were better detailed in this section of this study, in addition to the cost of a cesarean delivery being higher than a normal delivery, considering the material needed for childbirth.

Despite the costs with material for each type of delivery, one of the measures put in place by the ANS was to increase physicians' remuneration for normal deliveries in detriment of cesarean sections, which would work as a stimulus to reduce the number of cesarean sections, something that is in the scope of the Suitable Childbirth Program. One of the reasons for this change, besides the already mentioned intention to reduce cesarean deliveries, is the fact that the amount that was paid to doctors who performed normal deliveries and cesarean



Graph 1. Type of births in Brazil, between 2000 and 2018. Source: Ministry of Health (2020). Note: The Total category includes unknown deliveries and those that were performed using the forceps method, in addition to normal deliveries and C-sections.

deliveries was similar (Febrasgo, 2018).

Since normal childbirth has a variable duration for each case, a time that can be significantly extended by complications that may arise during childbirth—such as the baby not being in the right position for birth, the mother's lack of dilation, the umbilical cord wrapped around the baby, among other factors—end up being a financial disincentive for the obstetrician to wait the course of normal childbirth, something that was detailed theoretically according to the concepts of Dufour (2015), explored in Section 3.

At this point in the discussion, it is worth mentioning some measures that can be studied so that the initiatives of the Ministry of Health can have their effects enhanced. The first of these is the issue of informing women during pregnancy, with the goal of making clear the pros and cons of both types of births. Information is undoubtedly a path that needs to be considered as a priority by the health authorities. Moreover, information is a right of the parturient woman, because it gives her more security and autonomy regarding her decision. Making women aware of this right also contributes a lot so that they can make the choice they deem most appropriate.

Recently, the WHO (2018b) released a guide that contains some recommendations to contribute to reducing the percentage of unnecessary cesarean deliveries, which can bring consequences for women's health both in the short and long term, and noting that this is not only a trend in Brazil, but in global terms. Among them, precisely this issue of information is mentioned, both for pregnant women and for the people who are in the role of accompanying them. Another recommendation that is brought up by the WHO (2018b) guide is that there should always be good communication between the medical team and the pregnant woman, and it is also highlighted the role of the companion, which is a right of choice of the pregnant woman.

One of the most recent initiatives in Brazil in this segment was the Careful Childbirth Project, launched in 2018, which also carries the characteristic of the humanization of childbirth as something necessary to ensure good health and safety for mother and baby both in the monitoring of pregnancy performed by prenatal care and during childbirth, with the goal of monitoring births performed in the country by an online system, which would allow controlling the number of cesarean and normal deliveries. This project can be considered a continuation of the already mentioned Suitable Childbirth Program, with the intention of seeking a reduction in the unnecessary number of C-sections. To this end, the Careful Childbirth Project proposes to invest in professional training for doctors and nurses, providing more information about normal childbirth, in addition to planning educational activities in places where prenatal care occurs (Ministry of Health, 2018).

6. Concluding Remarks

This paper aimed to show some of the most recent initiatives that are being car-

ried out in Brazil in order to try to reduce the unnecessary number of cesarean deliveries. In this sense, some of the main reasons were presented for understanding why the number of cesarean sections has increased significantly in Brazil in recent decades, with a proportional drop in the number of normal deliveries as a counterpart.

When reviewing the literature, it was possible to notice that factors such as economic conditions and the mother's level of education are variables that influence the choice for the type of delivery. In addition, there are characteristics that ended up gaining place in the so-called common sense, and are still used as justification for choosing a cesarean section, as is the case of some beliefs that a cesarean delivery is more hygienic and safer than a normal birth, as pointed out by Dufour (2015). As economic implications, it was possible to identify that the remuneration of medical staff can also be a factor that impacts the number of cesarean deliveries, and it is for this reason that some measures have been and are still being formulated that aim to considerably increase the remuneration for performing normal deliveries compared to cesarean sections, in order to stimulate this mode of delivery, and seek to reduce the number of cesarean sections.

In addition, some studies have pointed out the savings that would result from the reduction of unnecessary cesarean sections, which should be observed by the responsible authorities so that the results of these studies are taken into account when formulating policies to encourage normal birth.

It is worth mentioning that the intention of this research is not to disqualify or delegate to a lower role the medical relevance of the cesarean section practice, while recognizing how useful it can be to save mothers' and babies' lives in case of a number of complications at birth. However, one should not recommend that C-sections become the rule in most births in the country, but rather a means of dealing with complications that can be life-threatening for the mother or baby during delivery.

Moreover, it is important again to emphasize that the pregnant woman's opinion, together with the related medical knowledge, is what should lead to a decision regarding the type of delivery to be performed. Therefore, it is necessary to invest in initiatives that result in more information for pregnant women, more medical training to deal with this type of decision, and good communication between doctors and pregnant women, as recommended by the World Health Organization. Again, the pregnant woman has rights that must be guaranteed at the time of delivery, ensuring that she participates in decision making.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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