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# CARE INDICATORS FOR DELIVERY ROUTES INDICADORES DE ASSISTÊNCIA ÀS VIAS DE PARTO INDICADORES DE ASISTENCIA A LAS VÍAS DE PARTO

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#### **ABSTRACT**

**Objective:** to describe the delivery routes from the care indicators. **Method:** quantitative, epidemiological descriptive and documentary study developed from the neonatal obstetric indicators of the parturient women attended in a maternity hospital. Data collection occurred by consulting data available in spreadsheets of the Microsoft Excel® 2010 application. Data were presented in tables. **Results:** the normal delivery rate prevailed, while the cesarean section rate was higher than that recommended by the World Health Organization. **Conclusion:** findings do not differ from data found in the literature and show the need to transform the prenatal and delivery care model. **Descriptors:** Epidemiology; Childbirth Care; Maternity; Nursing; Natural Childbirth; Cesarean Section.

#### **RESUMO**

Objetivo: descrever as vias de parto a partir dos indicadores de assistência. Método: estudo quantitativo, epidemiológico descritivo, documental, desenvolvido a partir dos indicadores obstétricos neonatais das parturientes atendidas em uma maternidade. O instrumento de coleta de dados foi por meio de consulta aos dados disponíveis por cópias das planilhas do aplicativo Microsoft Excel® 2010. Os dados foram apresentados em tabelas. Resultados: a taxa de parto normal prevaleceu, enquanto a via cesariana foi acima do preconizado pela Organização Mundial de Saúde. Conclusão: achados não diferem de dados encontrados na literatura e evidenciam a necessidade de transformação do modelo de atenção ao pré-natal e ao parto. Descritores: Epidemiologia; Atenção ao Parto; Maternidade; Enfermagem; Parto Normal; Cesárea.

# RESUMEN

Objetivo: describir las vías de parto a partir de los indicadores de asistencia. Método: estudio cuantitativo, epidemiológico descriptivo, documental, desarrollado a partir de los indicadores obstétricos neonatales de las parturientes atendidas en una maternidad. El instrumento de recolección de datos fue por medio de consulta a los datos disponibles por copias de las planillas del aplicativo Microsoft Excel® 2010. Los datos fueron presentados en tablas. Resultados: la tasa de parto normal prevaleció, mientras la vía de cesárea fue más de lo recomendado por la Organización Mundial de Salud. Conclusión: hallados no difieren de datos encontrados en la literatura y evidencian la necesidad de transformación del modelo de atención al prenatal y al parto. Descriptores: Epidemiología; Atención al Parto; Maternidades; Enfermería; Parto Normal; Cesárea.

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### **INTRODUCTION**

unique Pregnancy is a and special transformation in the life of the woman, although the moment of becoming a mother is often mixed with insecurities, worries and anxieties. In several situations, the decision about the delivery route encourages great clinical discussions. The social fragility of women and newborns to some risk situations corroborates a preponderant indicator of their morbidity and mortality, with emphasis on maternal and neonatal deaths. About 287,000 women worldwide die each year due to complications related to maternity, which demonstrates a crisis in maternal and child health due to the great exposure of women and children to the risk of becoming ill and dying.1

Normal delivery has some benefits for both mother and child, such as faster recovery, absence of pain in the postpartum period, premature discharge, low risk of bleeding and of infections. For these reasons, according to World Health Organization (WHO) guidelines, the surgical procedure should account for a maximum of 15% of total deliveries and should only be an option in cases of risk to the mother or to the newborn. Thus, cesarean section would be a possibility when there are complications during pregnancy or vaginal delivery that cause some type of risk to the mother, the baby or both, without taking into account the decision of the parturient woman.2

The number of cesarean deliveries in Brazil is far beyond that advocated by the WHO since the 1980s, which is a cause of complications at childbirth and also one of the main examples of the very interventionist care model. This type of delivery accounts for 80% of deliveries in private health plans and 26% in the public system, which provides an average cesarean section rate of 40%. This puts Brazil in first place in this surgical procedure frequency. Each caesarean section without need means a greater risk of complications, such as infection, hemorrhage anesthetic complications. For newborn, the potential risk is related to respiratory problems due to prematurity. Increased surgical procedures, hospitalizations and complication treatments cause waste of millions of reais per year in the Brazilian Health System (SUS), which could be spent on investments for improved health care.3

The creation of the Humaniza-SUS policy proposes a new connection between the user of the Brazilian Health System (SUS) and the practitioner who will assist him/her. This

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proposes the implementation humanization practices and the exchange of between information managers, practitioners and clients. Ordinance no. 1,459 was created in June 24, 2011, aiming at the improvement of prenatal, childbirth and puerperium care. It established the Stork Network within the scope of the SUS, ratifying that it consists of a network of care that aims to ensure women's right to reproductive planning and humanized care to pregnancy, childbirth and the puerperium, as well as of children's right to assisted birth and to healthy and satisfactory growth and development.4

The experience of insertion of humanized labor in some health services in Brazil has proven to be a continuous and sometimes difficult process. Multiple and effective interventions are important, such as prenatal care quality improvement, encouragement of pregnant women for normal delivery, presentation of current clinical protocols, maintenance of health education on delivery care quality and puerperium in health centers and training of professionals.<sup>3</sup>

The Stork Network is, up to now, the most complete program ever created by the Federal Government. It has actions focused on all phases of a woman's life, ranging from recommendations in relation to body care with the use of contraceptive methods, providing care for the pregnant and puerperal woman and for the newborn, until care of the child up to two years old. This confirms the care of humanized childbirth and the training of health workers. The qualification practitioners is also included in the Stork Network strategy, since the Ministries of Health and Education have instituted the National Internship Program in Obstetrical (PRONAENF). This reaffirms the importance of the qualification of the nurses to provide a humanized and efficient service, enabling them to assist in the different pregnancy moments.5

# **OBJECTIVE**

♦ To describe the delivery routes based on the care indicators.

#### **METHOD**

This is a descriptive, documentary and quantitative epidemiological study about data on parturient women who had been attended at a Hospital in the North of Minas Gerais between 2012 and 2016. This institution is the only one in the region that provides medium and high complexity and universal care, free of charge and a 100% through the Brazilian

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Health System (SUS). In addition to being a reference in the city for Sexually Transmitted Infections (IST/AIDS), tuberculosis, accidents caused by venomous animals, high-risk pregnancies, hospitalization and shelter for victims of sexual violence.<sup>6</sup>

The institution is recognized as a "Child-Friendly Hospital" and "Safe Maternity Hospital" - titles provided by the Pan American Health Organization (PAHO), the United Nations Children's Fund (UNICEF), the Ministry of Health and the Brazilian Federation of Gynecology and Obstetrics Societies (FEBRASCO).

The research was carried out based on the neonatal obstetric indicators of the parturient women attended in the maternity hospital in the North of Minas Gerais, inaugurated in January 1992. This is a supplementary unit of the State University of Montes Claros -UNIMONTES, which plays an important role in the interaction of the university with the community, enabling the exchange technical, scientific and cultural knowledge. It is linked to the Center for Biological and Health Sciences of UNIMONTES, aiming to implement the programs of training. habilitation, improvement and specialization of health professionals, being a field of training for undergraduate and graduate students of the said university and other institutions.6

The data collection instrument consisted of consulting the secondary data of the childbirth assistance indicators available in the maternity hospital management and copying them on Microsoft Excel® 2010 spreadsheets. The database was presented in table format. Initially, we will present the characteristics of the studied women. For the qualitative variables, the statistics presented will be the absolute frequencies (n) and the relative frequencies (%).

The research project was approved on 02/13/2017 at the Ethics and Research Committee of the State University of Montes Claros-MG, under Opinion No. 1,921,526.

## **RESULTS**

In the period from 2012 to 2016, the service in question recorded 9,279 births. According to Table 1, the predominant age group of parturient women was between 19 and 34 years in the period investigated. With the number of to consultations, the most frequent percentage was from 6 to 9 consultations. In relation to gestational risk, the usual risk was more frequent than high risk. On gestational age, the most prevalent interval was from 37 to 40 weeks. The analysis of delivery route in primiparous women shows that the normal delivery rate was higher in 2015 (79.46%), while the number of cesarean sections increased in comparison to the natural birth in 2014 (54.21 %) and 2016 (55.75%).

Table 1. Obstetric profile of parturient women attended at a university hospital in the North of Minas Gerais in the 2012-2016.

Gerais in the 2012-2016.										
Variable	2012		2013		2014		2015		2016	
	N	%	N	%	N	%	N	%	N	%
Age										
12-19	323	18.79	477	25.77	488	24.95	359	17.44	279	16.46
19-34	1223	71.15	1146	61.91	1219	62.32	1435	69.73	1182	69.73
35-39	130	7.56	176	9.51	198	10.12	208	10.11	184	10.86
More than 39	43	2.50	52	2.81	51	2.61	56	2.72	50	2.95
Number of prenatal	13	2.30	32	2.01	<b>J</b> 1	2.01	30	_,, _	30	2.75
consultations										
None	22	1.28	29	1.57	26	1.33	17	0.83	23	1.36
1 to 5	437	25.42	393	21.23	367	18.76	355	17.26	319	18.82
6 to 9	1015	59.05	1085	58.62	1112	56.85	1243	60.43	970	57.23
	245	14.25			451				383	22.60
More than 9	243	14.23	344	18.58	401	23.06	442	21.49	303	22.00
Risk	4452	<i>((</i> 00	4442	(4.75	4004	07.20	4073	05.00	4000	(2.00
Usual	1152	66.98	1143	61.75	1901	97.29	1973	95.82	1083	63.89
High risk	568	33.02	708	38.25	53	2.71	86	4.18	612	36.11
Gestational age										
Up to 36 weeks	287	16.70	311	16.80	317	16.20	308	14.97	311	18.35
37 to 40 weeks	1262	73.41	1347	72.77	1376	70.31	1479	71.90	1128	66.55
More than 40 weeks	170	9.89	193	10.43	264	13.49	270	13.13	256	15.10
Primiparous women										
Normal	342	59.07	468	60.54	49	45.79	89	79.46	50	44.25
Cesarean section	237	40.93	305	39.46	58	54.21	23	20.54	63	55.75

Source: Childbirth assistance indicators available in the maternity hospital management, 2012 - 2016.

Regarding the analysis of the delivery route in the hospital under study, according to Table 2, the normal delivery rate prevailed, while cesarean section remained constant in the studied period, being well above that recommended by the WHO, which is at most

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15%. The highest cesarean rate was recorded

in 2016, reaching 40.65%.

Table 2. Distribution of puerperal women regarding the delivery route, North of Minas Gerais, 2012 - 2016.

Year	Delivery route								
	Normal		Cesarean section						
	N	%	N	%					
2012	1061	61.69	659	38.10					
2013	1148	62.02	703	37.98					
2014	1204	61.62	750	38.38					
2015	1246	60.51	813	39.49					
2016	1006	59.35	689	40.65					

Source: Childbirth assistance indicators available in the maternity hospital management, 2012 - 2016.

#### DISCUSSION

Childbirth in a hospital environment entails the adoption of various technologies and procedures in order to make it safer for the woman and the newborn. The advance of modern obstetrics has contributed to the improvement of indicators of maternal and perinatal morbidity and mortality. However, it has enabled the implementation of a model that considers pregnancy, childbirth and delivery as diseases, and not as expressions of health, and exposes women and their children at high rates of interventions, which should be used only in situations of need, and not as routine. The excess of interventions fails to consider the emotional, human and cultural aspects involved in the process, disregarding that the care at birth has a particular character that goes beyond the process of falling ill and dying.7

In Brazil, about 3 million births occur every year. The excess number of cesarean sections increases maternal and neonatal morbidity and mortality. This justifies the need to deepen the way in which the delivery routes are distributed in a given place, its diversity and other related aspects, as well as the reflection on the role of public policies.<sup>8</sup>

In the present study, the predominant age group was 19 to 34 years. This has been confirmed by other surveys, which show that have postponed marriage maternity because they have been involved in the field of work, being thus more financially emotionally independent. Also, of contraceptive methods advancement corroborates the postponement of the onset gestation, increasing the number of pregnant women in adulthood. Consequently, with increasing age, gestation becomes more problematic even for women with normal fertility.9-10 Another study observed that the tendency of cesarean rate is to increase concomitantly to the aging of a woman. 11

Prenatal consultations had a significant number in the present study. During the period of the research, more than 50% of the

women performed 6 to 9 consultations. As in other studies, a lower percentage of the studied women had not performed prenatal care. These results point to the need for the city managers to build strategic actions to guarantee and expand access to prenatal consultations for the most vulnerable populations. In view of this, primary health care plays a crucial role in bringing puerperal and pregnant women closer to the service through actions with early prenatal care, with the active search of pregnant women in the community and the implantation encouragement to participate in family planning programs. 12

With regard to gestational age, more than 70% of gestations had 37 to 40 weeks in this study. It is relevant to know the gestational age, whether it is preterm (below 37 weeks) and at term (above 37 weeks) to provide quality assistance during the prenatal period and delivery. Regarding at term gestational age, when there is adequate prenatal care and all the exams prove fetal well-being, there is no reason for concern. 13 However, the precise determination of gestational age is important since it provides for immediate obstetric interventions, several complications can occur for which the ideal treatment depends on fetal age. 13-14

In the analysis of the delivery route in primiparous women, we observed a higher rate of normal delivery, although the cesarean rates in this population was also high. This finding is important to highlight prevention of cesarean sections among primiparous women, since this anticipate in the long term the cumulative effects of a previous cesarean section with a consequent greater chance of future cesarean sections among these women.<sup>15</sup> The research "Being born in Brazil: National Survey on Childbirth and Delivery" reports that among women with a previous cesarean section only 15% had had a normal birth in the current gestation, which shows that despite the scientific evidence, the dilemma still remains: "once a cesarean, always cesarean section". This confirms the

need to avoid the first cesarean section, encouraging women to choose normal delivery.<sup>11,16</sup>

The present study showed a high rate of cesarean sections although the maternity hospital under study supports pregnant women with high obstetric risk in the northern region of Minas Gerais. Despite this, the rates are much higher than those recommended by the WHO. The data found corroborate national and international studies that show the increase in the number of sections. 7,11,14,17,18,19 The cesarean section rate in Brazil is around 56%, with variation public and private between services.<sup>7</sup> International study conducted in European countries and in the United States showed that rates of global cesarean section vary from 15.7% to 32.5%.20 In 2009, the United States recorded the highest percentage ever reported in caesarean section rates, 32.9%.<sup>14</sup> Cesarean delivery is a procedure that saves the woman and her child's lives. Studies have shown that delay in deciding for it can be detrimental to both. In contrast, a premature and erroneous decision may increase maternal and fetal morbidity and mortality.21

A study by the WHO recommends that population rates of caesarian surgeries above 10% do not contribute to the reduction of maternal, perinatal or neonatal mortality. Because the Brazilian population has presented a high number of previous cesarean operations, the adjusted rate that could be considered as a reference is between 25 and 30%.<sup>7</sup>

One of the reasons for choosing elective cesarean, apart from the convenience of scheduling childbirth, is to avoid pain. Because of these causes, many women opt for surgical delivery, ignoring the possibility of receiving pain relief also in vaginal delivery: both pharmacological and pharmacological methods. There is still an aesthetic concern in Brazil associated with the myth that cesarean section maintains intact the anatomy and physiology of the vagina and perineum. Another important cultural factor is the popular belief that vaginal birth is more risky for the fetus than a cesarean. Thus, many unwanted outcomes are generally attributed to failure to perform or to late completion of cesarean section. 16,22

It is necessary to consider that only three out of ten women begin gestation preferring cesarean delivery, but at the end of pregnancy, eight out of ten opt for cesarean delivery. This number is increased by the influence of prenatal counseling that overestimates the risks of vaginal delivery and

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stimulates fear and insecurity. The disincentive to vaginal delivery is strongly observed in the prenatal care performed in the private system, in which follow-up is exclusively conducted by the physician, whereas in the SUS, in many cities, the consultations alternated are physicians and nurses. A population-based study showed that, in the public sector, the proportion of women who prefer cesarean delivery had not changed at the end of gestation. And research has shown that there is still no great satisfaction with cesarean delivery, especially among women from the less favored economic classes, since in the public sector its occurrence is almost always with associated complications pregnancy and at delivery.<sup>22</sup>

The main reasons involved in the changes in cesarean section rates are multifactorial and complex. A few examples are: dystocia, acute decline in the so-called vaginal deliveries after cesarean section started to be closely related to the risk of uterine rupture associated with a previous incision, the controversy of the cesarean section at the request of the mother and the induction of delivery in at term or near term pregnancy with failure in induction. <sup>14</sup> In the studied maternity hospital, the failure in induction is sometimes associated with non-continuity of the procedure.

Public and university hospitals have the highest rates of cesarean deliveries. This is explained by the higher level of complexity of the services, as these are tertiary hospitals and references for high-risk pregnancies.<sup>8,11</sup> This fact justifies the high percentages in the studied maternity, being in line with the pattern observed in the country.

The non-use of protocols of care to childbirth and delivery based on scientific evidence, both for usual-risk and for high-risk gestations explains the excess cesarean rates performed in our country.<sup>8</sup>

The influence of the nurse accompanying prenatal care and the information received during this period are decisive in choosing the type of delivery. Thus, it is necessary to share information on the physiology of childbirth, the non-pharmacological methods to reduce the pain, the advantages, disadvantages and risks of different types of delivery, as well as to share experiences with the pregnant women and their caregivers on normal birth. It is also essential to reflect and debate with health professionals about this theme, seeking to demystify this period of women and the family.<sup>23</sup>

According to the best scientific evidence, the model of care for childbirth and delivery led by obstetrical and obstetric nurses, as these professionals are primary responsible for vaginal deliveries, increases the chances of vaginal delivery and reduces unnecessary interventions, avoiding compromising the health of women and their children.<sup>16</sup>

#### CONCLUSION

Vaginal delivery has shown to be the prevailing pathway in the study at the maternity hospital in question, corresponding to more than half of the total number of deliveries in the years analyzed. However, the rate of cesarean section was higher than that recommended by WHO.

Considering that vaginal delivery provides benefits to the mother/child binomial, it is necessary to develop educational practices for women, informing them about the risks and complications of a cesarean section for her and the child when there is no specific indication, as well as the advantages and disadvantages of different types of delivery, and that cesarean section should be used for the well-being and safety of the binomial. After been informed, these women can be multipliers and encourage normal childbirth within their social networks and spaces of daily life.

Studies that address this theme are important because their results highlight the reality and the need to transform the prenatal care model and delivery; and demonstrate the need to qualify and train professionals providing care in the obstetric area on best practices and behaviors in the assistance provided to this public during the pregnancy-puerperal cycle by planning actions based on scientific evidence.

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