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Analysis of the causes of death of live newborns of mothers living in Belo Horizonte/MG in the period 2015-2019

Análise das causas de óbitos de recém-nascidos vivos de mães residentes em Belo Horizonte/MG no Período 2015-2019

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ABSTRACT

The investigation carried out by the committee for the prevention of infant and neonatal deaths is extremely important to be able to understand what made it possible for the death to happen, what is happening to the population, the family. Aiming at reducing deaths from preventable causes. For this to happen in a standardized way, it is important to train professionals, fill out the forms correctly, improve the quality of care for pregnant women, before and after childbirth, stimulating orientation and autonomy. Objective: To characterize the deaths of newborns born to mothers living in Belo Horizonte/MG from 2015 to 2019. Methodology: This is a descriptive study with original secondary data made available free of charge by the Ministry of Health, through the DATASUS and TABNET Information System. Results: Of the 1,041 deaths of newborns in BH/MG, it was possible to find the main causes, with emphasis on: some conditions originating in the perinatal period and congenital malformations, deformities and chromosomal abnormalities. Conclusion: Live births in Belo Horizonte are avoidable, and follow-up through prenatal consultations, birth planning, monitoring of pregnant women and humanized childbirth within the service capable of meeting the needs of pregnant women would reduce deaths. In addition to providing reliable data for the dimensioning of the public budget and the development of strategies that prioritize specific actions for prevention and health promotion.

Keywords: Cause of death, Newborns, Prenatal care, Perinatal death, Cause of death, Mortality indicators.

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INTRODUCTION

The continuing education of health professionals and nurses during prenatal care and follow-up of pregnant women ensures greater guidance, removal of doubts, prevention of possible complications, a smoother delivery and the reduction of infant and neonatal mortality, where the parturient will be more prepared and the team with all the humanized care prepared for any type of event that happens (SOUZA *et al*., 2019).

The implementation of good humanized practices in the care of parturients and newborns, containing monitoring, guidance, removal of doubts, risk mapping, situational mapping of the population, in addition to actions to contribute to the increase of the mother-child bond, where skin-to-skin contact is beneficial for the child, establishes trust, autonomy of the mother and reduction of possible invasive interventions and reduction of neonatal mortality, where, most of the time, they are biological causes and even lack of follow-up or access to health services. Some good practices such as these are measures to control neonatal mortality rates, thus reducing harm and risks to births and parturients (SOUZA *et al*., 2020).

With the training of professionals, implementation of health promotion, prevention, preparation of the population and guidance, using continuing education, we can train the population and professionals, thus reducing the avoidable causes of neonatal mortality, contributing to non-abandonment, reducing the number of teenage pregnancies, helping to prevent and detect possible complications, thus reducing the rates of indicators, data and invasive interventions, contributing to an even safer, more humanized, healthy delivery, reducing the traumas of parturients and even obstetric violence (BRITO *et al*., 2021).

The cause of infant and neonatal mortality is the responsibility of the prevention committee, the investigation of the causes of deaths that have occurred is extremely important to be able to understand what is happening to society, family, where it was possible for deaths to happen, thus aiming to reduce these risks and reduce the number of deaths for avoidable reasons. For this to happen in a standardized and effective way, it is extremely important to train professionals, investigate the factors that led to deaths, improve the quality of care during prenatal care, before delivery, during and after, paying attention to the choices of the parturient and her child (LODI *et al*., 2020).

The present study has as a research problem the characteristics of newborn deaths in Belo Horizonte/MG in the period from 2015 to 2019. The objective of this study was to characterize the deaths of newborns born to mothers living in Belo Horizonte/MG from 2015 to 2019.

Although the Ministry of Health has indicators to carry out surveys on newborn deaths and has prevention committees, this topic needs to be further studied, given its greater importance, with greater investments and qualifications. Infant and neonatal mortality are public health indicators with a direct impact on society, care care, and the family. For this reason, the theme is of great relevance for health professionals where they will work in various forms of care, considering that the nurse or nursing student participates in care, whether direct to the patient or administrative, it is necessary to have knowledge of the subject, know how to research and collect data, communicate, notify, know how to identify health problems, avoidable causes of morbidity and mortality in the various phases of care.

The interest is due to the need to obtain reliable and up-to-date data on neonatal mortality; Research, discuss and propose measures and actions to qualify and improve all nursing care with a view to reducing avoidable harm and impacts on society as a whole. By understanding health needs, monitoring morbidity and mortality indicators, investing in all levels of health care, improving the quality of care in the unified health system, it will be possible to mitigate the impacts of infant and neonatal mortality and improve the quality of life of the population.

THEORETICAL FRAMEWORK

Prenatal care is an essential factor that precedes birth, because through its performance it is possible to identify adverse events on obstetric health and potential risk factors for the mother and her newborn, so the non-performance of it, or the performance of it inappropriately, can cause several damages to them, and has been questioned because it is considered one of the highest rates of infant and maternal mortality due to non-adherence. Other factors contributing to the rates of maternal and infant death are related to poor management, lack of qualification of professionals, and lack of interaction of the multidisciplinary team. (FREITAS *et al*., 2021).

According to the World Health Organization, it is recommended that pregnant women have at least eight prenatal consultations in a risk-free pregnancy. The first contact should take place up to the twelfth week of gestation and the eighth contact should happen until the forty-fourth week 40, during these consultations the development of the fetus, the physiological changes of the mother, inclusion of the father in the pregnancy and care process should be monitored, in addition to the preparation of the birth plan. (WHO, 2018). The objective of pre-birth consultations is to outline the care of pregnant women and newborns, providing guidance on rights, duties, care, answering questions, mapping possible risks, even treating pathologies

intrauterinely. It is prenatal care that allows us to investigate and identify pathologies early, minimizing mortality rates (BRASIL, 2016).

The role of the nurse in the obstetric care model offered by the public health network highlights that the obstetric nurse has the responsibility to evaluate, monitor pregnant women, guarantee the rights of care during pregnancy, childbirth and puerperium, reducing fears, anxieties, doubts, ensuring and offering a humanized, dignified experience (REGO *et al*., 2018).

Immediate care of the newborn in conjunction with the kangaroo method, where professionals guide and encourage the mother and family about contact with the baby, are important to reduce the neonatal mortality rate, increasing the bond and resulting in greater maternal closeness, adaptation and increased autonomy of the mother. (SILVA *et al*., 2020).

After birth, the neonatal mortality rate in the first 24 hours of life is high. The main causes are non-adherence to prenatal consultations and non-diagnosis of deaths from preventable causes; low maternal education, gestational age less than 37 weeks, low vitality at birth, cesarean delivery, low birth weight, newborns with *Apgar* scores lower than 7 in the first and fifth minute of life, anomalies, maternal factors, among other factors. and so on. Among all the findings, the causes of death are preventable and are related to the quality of care received, whether obstetric and/or neonatal. (GAVÍA *et al*., 2018; Muniz et al., 2018)

As a public health problem, neonatal mortality is considered an indicator, as it informs the occurrence and distribution of deaths in a certain population. A live birth that dies within 27 days is classified as a neonatal death. Early death, on the other hand, is the one that happens from day 0 to 6 of the newborn's life (REIS, 2017).

As it is a public problem, some prevention measures are carried out to improve this indicator. The Ministry of Health created a Committee for the Prevention of Maternal-Infant, Fetal and Neonatal Deaths to collect data, identify the factors that led to deaths, plan prevention and precautionary actions, aim to improve the structure of care provided, improve the quality of care provided to mother and child, among other factors that may have a direct impact. (LODI *et al*., 2020).

In this context, this study seeks to characterize the deaths of newborns and mothers living in Belo Horizonte/MG in the period from 2015 to 2019.

METHODOLOGY

This is a quantitative descriptive epidemiological study that aims to investigate and describe facts, phenomena, and health-related conditions. A quantitative descriptive analysis

enables the understanding of these secondary data and the creation of strategies to solve the problems detected. (PRODANOV, FREITAS, 2013).

The data used in this study are original, secondary and made available free of charge by the Ministry of Health, through the DATASUS and TABNET Information System, accessed on September 21, 2021 at the link: http://tabnet.datasus.gov.br/cgi/deftohtm.exe?sim./cnv/obt10mg.def.

All ethical and legal principles of research involving human subjects were respected. In compliance with Resolution No. 466 of December 12, 2012 of the National Health Council (CNS/MS), the data provided by the Ministry of Health do not allow the identification of the subjects, which does not require the evaluation of the project by the Ethics and Research Committee.

Stage 1, scientific data collection was carried out from March to August 2021, using the following databases: Scielo (*Scientific Electronic Library Online*), VHL (Virtual Health Library). Using standardized search terms, health sciences descriptors (DeCS) and applying the Boolean operator AND. The combination of the descriptors was as follows: "Cause of Death AND Newborns", "Low birth weight newborns AND Cause of Death", "Prenatal care AND Newborns", "Perinatal Death", "Cause of Death AND Newborns", "Mortality Indicators", "Mortality AND Newborns".

Step 2 selected the death records of newborns from Belo Horizonte/MG, with selection of variables related to: death, newborn, mother and type of delivery. Variables related to death: causes, age range from 0-6 days and 7-27 days, deaths investigated. Variables related to the mother: age and schooling. Variables related to childbirth: place and type of delivery. Variables related to the newborn: sex, color/race and birth weight, the other variables made available by the DATASUS website were not included in the analysis.

Stage 3 was performed in the literature to construct the discussion, in addition to a descriptive statistical analysis of the data organized in tables to highlight the data found and describe the findings of the deaths, in response to the guiding question of this study. The data were stratified and tabulated using the TABWIN tool (a program provided by the Ministry of Health) and Windows Excel.

RESULTS AND DISCUSSION

In Brazil, between 2015 and 2019, 6,553,132 newborn deaths were recorded. In Minas Gerais, 681,290 deaths, corresponding to 10.40% of the national total. The capital of Minas

Gerais registered 78,328 deaths, which represented 11.50% of the total in Minas Gerais. In the same period, considering the DATASUS definitions of newborns (age groups from 0 to 6 days and 7 to 27 days), Brazil registered 126,882 deaths, in the state of Minas Gerais 10,505 and in Belo Horizonte 1,041 (DATASUS, 2021).

Table 1 shows the records of newborn deaths per year in Belo Horizonte, Minas Gerais, Brazil.

Table 1: Registered deaths of newborns by year, in Belo Horizonte/MG, 2021.

Year of death	Number of Deaths	Percentage %
2015	228	21,90%
2016	189	18,16%
2017	209	20,08%
2018	205	19,69%
2019	210	20,17%
Total	1041	100%

Source: MS/SVS/CGIA – Mortality Information System – SIM

According to data obtained from DATASUS, taking into account the same period, age group from 0 to 6 days, 7 to 27 days, the capital of Espírito Santo had 130 newborn deaths between 2015 and 2019, while Rio de Janeiro had 3,298 deaths, São Paulo 6,302 deaths, Goiânia 926 deaths and Brasília 1,696 deaths in the same period.

Table 2: Variables related to death in Belo Horizonte, Minas Gerais, by sex, skin color, birth weight, place of delivery, type of delivery, deaths investigated, mother's age, mother's schooling

Variables	All deaths N (%)
Gender	
Male	557 (53,51)
Female	480 (46,11)
Ignored	4 (0,38)
Color/Race	
White	363 (34,87)
Black	23 (2,21)
Yellow	3 (0,29)
Curtain	597(57,35)
Indigenous	1 (0,10)
Ignored	54 (5,19)
Birth weight	
Less than 500g	144 (13,83)
500 to 999g	402 (38,62)
1000 to 1499g	120 (11,53)
1500 to 2499g	175(16,81)
2500 to 2999g	76 (7,30)
3000 to 3999g	96 (9,22)
40009 and over	7 (0,67)
Ignored	21 (2,02)

Place of delivery	
Hospital	1029 (98,85)
Other health facilities	4 (0,38)
Domicile	8 (0,77)
Tipo de parto	
Vaginal	553 (53,12)
Cesarean	464 (44,57)
Ignored	24 (2,31)
Deaths Investigated	
Death investigated, with summary form informed	1027(98,66)
Death investigated, with no summary form informed	5 (0,48)
Death not investigated	9 (0,86)
Mother's age (in years)	
10 to 14 years	5 (0,49)
15 to 19 years old	134 (13,10)
20 to 24 years old	214 (20,92)
25 to 29 years old	196(19,16)
30 to 34 years old	203 (19,84)
35 to 39 years old	203 (19,84)
40 to 44 years old	63 (6,16)
45 to 49 years old	5 (0,49)
Mother's schooling (in years of study)	
No	10 (0,96)
1 to 3 years	20 (1,92)
4 to 7 years	137 (13,16)
8 to 11 years	593 (56,96)
12 years and older	245 (23,54)
Ignored	36 (3,46)
Total Found	**1041**

Source: MS/SVS/CGIA – Mortality Information System – SIM

Regarding gender, 53.51% of the deaths were male newborns while 46.11% were female. Ignored data on gender accounted for 0.38%. According to DATASUS (2021), 3,453,369 births were registered in Brazil in the period 2015-2019. In Belo Horizonte, there were 150,295 births, of which 76,805 were male and 73,484 were female.

A study on infant mortality and gender carried out by Alves and Coelho (2021), showed a higher rate of male infant mortality, where these children are more vulnerable and more susceptible to death, where it would be possible to investigate the causes greater, invest more in basic health, provide greater assistance to pregnant women, providing guidance on the entire pregnancy process, breastfeeding, risks, childbirth resulting in a reduction in infant mortality.

After conducting a study in the population of Alagoas, in the same age group, but in the period from 2008 to 2017, Barros *et al* (2019), showed that more cases of male deaths were registered, also taking into account the rate of live births, which was also higher than the rate of male births.

According to color/race: 37.84% of the newborns were white, 2.21% black, 0.29% were yellow, 57.35% were brown, 0.10% were indigenous, and 5.19% were of unknown race.

By conducting a study on the epidemiology of infant mortality in the state of Paraíba, Brazil, Peixoto *et al* (2021) were able to evidence a higher prevalence of infant mortality in male and brown-skinned children.

For Pícoli, Cazola and Nascimento (2019), after carrying out the study on infant mortality in children under 1 year old, it was possible to highlight that there was a decline in the coefficient of deaths in brown and black children, with a higher rate of ill-defined causes in indigenous and brown children, where the socioeconomic and cultural situation was taken into account.

Color/race is still a factor of inequality in Brazil, where it has an impact on the mother's schooling, opportunities, access to health units, where by itself it is not a risk factor, but it is an impact factor on the outcome of pregnancy (PACHECO *et al.*, 2018).

Newborns with the highest percentage of death (38.62%) were those born with 500 to 999g, followed by 16.81% of those born with 1500 to 2499g representing. According to Moreira, Sousa, Sarno (2018), the characteristics of the pregnant woman, housing, socioeconomic conditions, number of pregnancies, age of the pregnant woman, type of delivery are factors that influence birth weight, especially low birth weight.

Newborns can be classified by birth weight, with low birth weight being considered those born weighing less than 2500g, very low birth weight those weighing less than 1500g and extremely low birth weight those born weighing less than 1000g (BRASIL, 2016).

When studying factors associated with neonatal mortality of low birth weight newborns, Gaíva *et al* (2020) confirmed that the factors that impact neonatal deaths are: low birth weight, birth weight between 500 and 900 grams, presence of congenital abnormalities, factors related to inadequate care of pregnant women, low quality of prenatal care, Apgar score in the first and fifth minute of life below 7.

The risk factors for neonatal deaths are: low birth weight, weight less than 1,500 grams, prematurity, gestational age according to Sleutjes *et al (*2018), which highlights the importance of prenatal consultations, follow-up, maternal history of infant deaths, abortions, indication of correct follow-up according to each case, and complexity.

Regarding the place of delivery: 98.85% were in hospitals, 0.38% in other health establishments and 0.77% were at home, while related to the newborn, the following variables were chosen: age group determined from 0 to 6 days, 7 to 27 days in the period from 2015 to 2019.

The search for a planned home birth has been growing in the country, but it is something that escapes the reality of many women, but it is something that brings great benefits to the pregnant woman and baby, as it enables a remarkable moment without possible trauma, obstetric violence, stimulates autonomy and increases the mother-child bond according to Cursino and Benincasa (2020). The search in the market for specialization, the search for prepared professionals, trained for this follow-up has also been growing over time, and it is very important to have a nearby hospital for support and transfer if necessary, to guide the woman about risks and benefits and the possibility of needing to transfer and intervene in other ways, preparing psychologically, with all the necessary support.

Hospital humanization is extremely important for pregnant women from their admission to the hospital until they are discharged. It is in this moment of fragility that women need support, guidance, welcoming, where it will be in the hospital that many will learn to bathe, breastfeed and create a direct bond with their child after birth. Women who have humanized births within hospitals, with all the support at different times, create more bonds, breastfeed for longer and report that the experience is unique and positive, with benefits for both and support for their needs (BRAGA, SILVA, BONASSI 2021).

According to the National Health Council (CNS) (2019), healthy childbirth is natural, with humanized care, where it brings less risk to the parturient and her child, while cesarean section should be indicated only in cases where the pregnant woman and the child are in danger, thus being a therapeutic intervention to reduce damage and risks to life. It thus needs to be prescribed by the doctor and follows a series of criteria.

In recommendation No. 11 of 2021, the CNS reports that Brazil has a high rate of cesarean sections where it is not related to the reduction of maternal and neonatal mortality, due to cesarean section without correct indication, following the criteria, bringing risks. Cessation without indications can cause adverse events to the mother and baby, and is also linked to early weaning. Even with the high rate of cesarean sections in Brazil, about 53.12% of the cesarean sections in Belo Horizonte, Minas Gerais, Brazil.

According to Resolution No. 2,284 of the Federal Council of Medicine (2020), it is the right of pregnant women to guarantee their right to autonomy, opting for an elective cesarean section or even anesthesia at the time of vaginal delivery (normal) as long as they are guided from their prenatal appointments.

Some measures can contribute to the reduction of newborn deaths, such as infection control, reduction of the risk of developing pathologies during pregnancy, quality of care during

prenatal care, improvement of quality of life, monitoring and socioeconomic mapping, knowing the mother, her reality, indicating and monitoring the type of delivery, in a way that stimulates the woman's autonomy in choosing childbirth, in a way that does not influence them or that they are influenced by lack of knowledge, avoiding invasive procedures, implementing measures to reduce premature births, unnecessary cesarean sections, are factors to control the impacts on women's lives, reducing trauma and mortality rates (ALMEIDA, COUTO, JUNIOR 2019).

The creation of programs and policies for the prevention and precaution of deaths, being executed and adhered to by health professionals, hospitals and institutions, would work in the face of mortality rates, as well as the stork network, the implementation of action plans by professionals and hospitals, for example, is something that well implemented and structured can bring several positive impacts to the population, society, indicators, where with training, guidance, qualification of professionals, prepared, humanized, well-structured care, with correct guidance on the types of delivery, with correct indication for each case, with the risks and benefits being explained, it will be possible to obtain a reduction in the neonatal and infant mortality rate. (SILVA *et al*., 2019)

According to Fernandes, Almeida, Nascimento (2021), many women are influenced in the choice of the type of delivery, whether influenced by family, friends, doctors or even by the fear of pain or a faster type of recovery, where consequently most opt for cesarean delivery, increasing the country's indicators. According to the recommendations of CNS No. 11 of 2021, informing and guiding the woman and family about the type of delivery, place, in a way that removes doubts, fears, and anxiety are factors that help reduce the induction of unnecessary cesarean sections.

The results of the present study reveal that 1027 deaths were investigated and had a summary form informed, 5 were investigated without an informed summary form and 9 were not investigated. The non-completion of the summary form or even the poor completion are factors that impact the investigation of deaths, often leaving gaps about the real cause of death, hindering the investigation of the facts, when they are filled out correctly they are factors of paramount importance for the investigation and traceability, many of the deaths investigated did not obtain all the information in the form, for example, if prenatal care was performed, how many consultations, which further emphasizes that the absence of care for pregnant women is a risk factor for neonatal mortality (SILVA, RECKZIELGEL, SILVA, 2018).

The investigation of deaths according to Sleutjes *et al* (2018) is essential for the prevention of the causes of deaths, where it is possible to analyze, create a follow-up of the

population and emphasize improvement policies, enabling a thorough review and investigation of all notifications,

Regarding the mother's age, the highest percentage of deaths was found in the age group of pregnant women between 20-24 years, 25-39 and 30-39. According to the study by Brito *et al* (2021), after analyzing the causes of infant deaths in a certain region of Brazil, it was evidenced that both extremes of age and teenage pregnancy are risk factors and impact on infant mortality. Where the lack of information, schooling, deficit in the Unified Health System, such as health promotion in schools, where children and adolescents of both sexes would be advised about the risks of an early pregnancy, support on family planning, quality prenatal care would reduce the indications of mortality and would guarantee a safer delivery, with risk reduction. Women with a healthy life, not too young and not too advanced, have more chances of a smoother pregnancy and with a lower chance of complications, risks and chances of low vitality.

Regarding maternal schooling, 0.96% had no schooling at all, 1.92% had 1 to 3 years of schooling, 13.16% had 4 to 7 years of schooling, 56.96% had schooling between 8 and 11 years, 23.54% had 12 years of schooling or more, and 3.46% had unknown schooling.

According to Garcia *et al* (2019), there are several factors that interfere in the choice of the type of delivery, complications, and development of pregnancy, some of which are, for example, schooling of less than five years, socioeconomic factors, female head of household, length of pregnancy, interval between pregnancies, low knowledge about risks, type of delivery, benefits, and poor quality of prenatal care.

The lack of knowledge of the reality of the mother and newborn are factors that impact the care process, where avoidable causes were associated with the population's access to primary care, lack of knowledge, so that the elimination of risks to the mother and child binomial can be developed and implemented in primary care with equity, reducing neonatal mortality. (MEDEIROS *et al.*, 2019)

For Silva *et al* (2020), socioeconomic knowledge about pregnant women is extremely important, as their lives have a great impact on the outcome of their pregnancy, where there is often an evident percentage of neonatal deaths in newborns who have a low-income mother, aged between 20 and 29 years and with less than 8 to 11 years of schooling, resulting in direct impacts on their newborns, such as low birth weight, complications, and a strong relationship with neonatal mortality indicators.

Table 3 shows the causes of death in newborns found in the 2015-2019 period in Belo Horizonte, after data collection from the present study.

Table 3: Causes of death found in Belo Horizonte/MG, by year, mother's residence, age group 0 to 6 days, 7 to 27 days, 2021.

Newborn Deaths in Belo Horizonte from 2015 to 2019	
Causes found:	
Some infectious and parasitic diseases	
Neoplasms (tumors)	
Endocrine, nutritional and metabolic diseases	
Some conditions originating in the perinatal period	
Congenital malformation, deformities and chromosomal abnormalities	
External causes of morbidity and mortality	
Total Deaths:	**1.041**

Source: MS/SVS/CGIA – Mortality Information System – SIM

Of the 1,041 deaths of newborns in Belo Horizonte, the most prominent causes were: some conditions originating in the perinatal period, representing 71.85% of the causes found, and congenital malformation; chromosomal deformities and abnormalities accounted for 27.09%; 0.77% were related to some infectious and parasitic diseases, 0.10% were related to neoplasms (tumors); 0.19% are the others.

Silva *et al* (2020), after conducting a study on the sociodemographic and obstetric profile of fetal deaths of pregnant women in a certain region of Brazil, it was possible to verify that most fetal and neonatal deaths are related to mother, age, study, conditions, complications, type of delivery, low birth weight, resulting in the determination of causes such as, intrauterine hypoxia, complications of the placenta, umbilical cord and membranes, and other conditions originating in the perinatal period, most of which are preventable causes.

Lobo, Soares, Silva (2020) highlighted the main causes of perinatal deaths: maternal infections, maternal factors, neonatal asphyxia, and neonatal infections with evidence of infections that could be controlled, which would have a positive impact on the reduction of neonatal morbidity and mortality.

In their 2012 study, Pícole, Cazola, and Nascimento (2019) found that the main causes of death in white, black, and yellow children were congenital malformations and prematurity, which are considered preventable causes. Gavia, Lopes and Mufato (2018) found that malformations represent the second leading cause of neonatal deaths in the country, and it is necessary to broaden the discussion on the subject and the institution of public policies to reduce these causes. In this context, Oliveira *et al* (2020) suggest that easily controlled causes of death, such as perinatal infections, could be monitored with basic health care in the perinatal period and that they directly impact mortality indicators. Results similar to those found in this analysis of the city of Belo Horizonte.

CONCLUSION

In Belo Horizonte, live birth deaths have preventable causes. Prenatal consultations, birth planning, follow-up of the pregnant woman and humanized delivery within the service capable of meeting the needs of the pregnant woman would reduce deaths. Quantifying these deaths instrumentalizes the indicators for the elaboration of public policies with reliable data for the dimensioning of the public budget, perinatal planning goals, complete and quality prenatal care plan for pregnant women with access to exams and multiprofessional care structure, control of indicators of infant and neonatal morbidity and mortality, in addition to the development of strategies that prioritize specific actions for prevention and health promotion.

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