

Epidemiological investigation of perinatal deaths in Recife-Pernambuco: a quality assessment

Avaliação da qualidade da investigação epidemiológica dos óbitos perinatais, Recife-Pernambuco
Evaluación de la calidad de la investigación epidemiológica de las muertes perinatales, Recife-Pernambuco

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ABSTRACT

Objective: to evaluate the completeness of perinatal death investigation sheets, stratified by age components. **Method:** descriptive study carried out in Recife, PE, in 2014. Among 308 perinatal deaths, 46 were excluded from this study due to association with congenital malformations, and 7 due to missing investigation sheets. Analysis included 255 deaths (160 fetal deaths, and 95 preterm neonatal deaths). The degree of completeness of 98 variables was calculated. They were aggregated into six blocks: identification, prenatal care, birth care, family characteristics, occurrence of death and conclusions and recommendations. **Results:** the median rate of completeness for perinatal death investigation sheets was 85.7% (82.8% for records of fetal deaths and 89.5% for records of preterm neonatal deaths). The best-filled information block was "identification" (96.1%), as well as its components: fetal (94.7%) and preterm neonatal (97.9%). The worst was "prenatal care" (69.8%), along with its components: fetal (73.8%) and preterm neonatal (67.4%). **Conclusion:** investigation sheets had good completeness; there were differences between variables and components of perinatal death.

Descriptors: Perinatal Mortality; Epidemiological Surveillance; Vital Statistics; Health Information Systems; Public Health.

RESUMO

Objetivo: avaliar a completude das variáveis das fichas de investigação dos óbitos perinatais, estratificadas por componentes etários. **Método:** estudo descritivo realizado no Recife-PE, em 2014. Dos 308 óbitos perinatais, excluíram-se 46 decorrentes de malformação congênita e 7 fichas não localizadas. A análise contou com 255 óbitos (160 fetais e 95 neonatais precoces). Calculou-se o grau de completude de 98 variáveis agregadas em seis blocos: identificação, pré-natal, nascimento, características da família, ocorrência do óbito e conclusões e recomendações. **Resultados:** a mediana de preenchimento do perinatal foi 85,7% (82,8% fetal e 89,5% neonatal precoce). O bloco de melhor preenchimento foi "identificação para o perinatal" (96,1%) e seus componentes, fetal (94,7%) e neonatal precoce (97,9%), e o de pior foi "pré-natal" (69,8%), acompanhado pelo fetal (73,8%) e neonatal precoce (67,4%). **Conclusão:** observouse completude boa das fichas de investigação, existindo diferenças entre as variáveis e os componentes do óbito perinatal.

Descritores: Mortalidade Perinatal; Vigilância Epidemiológica; Estatísticas Vitais; Sistema de Informação em Saúde; Saúde Pública.

RESUMEN

Objetivo: evaluar la completitud de las variables de las fichas de investigación de las muertes perinatales, estratificadas por componentes de edad. **Método:** estudio descriptivo realizado en Recife-PE, en 2014. De las 308 muertes perinatales, se excluyeron 46 derivadas de malformación congénita y 7 fichas no localizadas. El análisis incluyó 255 muertes (160 fetales y 95 neonatales precoces). Se calculó el grado de completitud de 98 variables agregadas en seis bloques: identificación, prenatal, nacimiento, características de la familia, ocurrencia del óbito, y conclusiones y recomendaciones. **Resultados:** la mediana de llenado del perinatal fue 85,7% (82,8% fetal y 89,5% neonatal precoz). El bloque de mejor llenado fue "identificación

para el perinatal" (96,1%) y sus componentes, fetal (94,7%) y neonatal precoz (97,9%), y el de peor fue "prenatal" (69,8%), acompañado por el fetal (73,8%) y neonatal precoz (67,4%). **Conclusión:** se observó una buena completitud de las fichas de investigación, existiendo diferencias entre las variables y los componentes del óbito perinatal.

Descritores: Mortalidad Perinatal; Monitoreo Epidemiológico; Estadísticas Vitales; Sistemas de Información en Salud; Salud Pública.

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INTRODUCTION

Deaths in the perinatal period, which range from the 22nd week of gestation to the sixth day of life, are evidence of socioeconomic vulnerabilities and compromised quality of maternal and child healthcare⁽¹⁻²⁾. Worldwide, there are an estimated 4.9 million perinatal deaths per year, including 2 million fetal deaths and 2.9 million preterm neonatal deaths. The perinatal death estimate for Brazil is 53,170⁽³⁾; most deaths were preventable and often remain uncounted⁽⁴⁾.

Although the World Health Organization (WHO) launched in 2014 a plan of action to significantly reduce preventable deaths and fetal deaths by 2035⁽⁵⁾, the organization's Sustainable Development Goals did not prioritize the monitoring of perinatal mortality rate, keeping it out of the public's attention⁽⁶⁾. However, countries that have vital statistics information systems with good coverage and reliable data can acquire knowledge on their perinatal epidemiological situation, planning interventions in favor of maternal and newborn health⁽⁷⁾.

Given the absence and insufficiency of vital information and better insight into perinatal deaths, death surveillance by combining maternal sociodemographic data, risk factors, healthcare histories and their nonconformities facilitates the understanding of the circumstances around the occurrence of death⁽⁵⁻⁶⁾. In Brazil, despite the fact that infant and fetal death surveillance became mandatory in the health services that make up the Unified Health System (SUS) only in 2010, there were several successful death surveillance experiences prior to the constitution of this normative base⁽⁸⁻⁹⁾.

Studies evaluating all stages of the death surveillance process and its investigative tools are still meager in the country⁽¹⁰⁾. Currently available analyzes on the consistency of information obtained from household interviews and institutional records, and on the completeness of investigation sheet variables, are insufficient. The same is not observed in respect to declarations of live births and deaths, which are heavily studied⁽¹¹⁾.

Knowledge on variables presenting non-null records in perinatal death investigation sheets may contribute to improvements in terms of gathering vital statistics, investigation quality, epidemiological situation diagnosis, evaluation of maternal and child healthcare, and planning of perinatal public policies.

OBJECTIVE

To evaluate the completeness of variables in perinatal death investigation sheets, stratified by age components.

METHOD

Ethical aspects

This research project was approved by the Research Ethics Committee of the Health Sciences Center of the Federal

University of Pernambuco on July 1, 2015 and obtained an approval from the Health Secretariat of Recife.

Study design, place and period

This was a descriptive study on the completeness of perinatal death investigation sheets carried out in 2014 with residents of Recife, PE. Recife is the capital of the state of Pernambuco, located in the Northeast region of Brazil, which in 2014 had 1,608,488 inhabitants, distributed over 218 km², 94 neighborhoods and six sanitary districts⁽¹²⁾. Surveillance of infant and fetal death was implemented in 2002, after the situation of infant mortality was analyzed. Death surveillance was collectively constructed by public managers and healthcare workers. Its goals were: to identify failures in maternal and child healthcare, defining their avoidability; to improve the quality of information systems and employ them in the research, planning and adoption of measures aimed at reducing infant mortality⁽⁹⁾.

Inclusion and exclusion criteria

In 2014, 308 perinatal deaths were recorded in the Mortality Information System (SIM), including those associated with mothers who resided in Recife. Perinatal deaths due to congenital malformations and those with missing investigation sheets were excluded.

Data source

Mortality Information System (SIM) and perinatal death investigation sheets. This sheet includes all the variables that the Ministry of Health requires to be monitored⁽⁴⁾, alongside others that are of local interest.

Study protocol, analysis of results and statistics

Structured variables (n = 98) were analyzed in eight blocks: notification and investigation of death; identification; prenatal care; birth care; family characteristics; occurrence of death; and conclusions, recommendations and preventive measures.

Completeness was analyzed by the proportion of filled fields in each variable and each block, and presented according to fetal and preterm neonatal components. Investigation sheet data were coded and typed with double entry, for inconsistency analysis and to minimize errors, using the Epi Info software, version 7.0. In order to classify the filling level of the variables, the scale proposed by Romero and Cunha⁽¹³⁾ was adopted: excellent (more than 95.0% filled); good (90.1 to 95.0%); regular (80.1 to 90.0%); poor (50.1 to 80.0%) and very poor (50% or less). Descriptive statistics were performed through R software, version 3.2.2.

RESULTS

Among 308 perinatal deaths, 46 (14.9%) were excluded from the study because they were associated with congenital

malformation, and 7 (2.3%) due to missing investigation sheets. Analysis included 255 deaths (160 fetal deaths, and 95 preterm neonatal deaths).

The variables analyzed presented a median filling level of 85.7%. For fetal and preterm neonatal deaths, the median filling level was 82.8% and 89.5%, respectively. In the perinatal general category, the best-filled block of variables was "identification," with a median filling level of 96.1%. The worst was "prenatal care," with 69.8%. In both perinatal components, the "identification" block presented the best completeness (fetal: 94.7%; preterm neonatal: 97.9%). Similarly, the block with the worst completeness among components was prenatal care (73.8% and 67.4%) (Table 1).

Table 2 presents data on death identification. Among a total of 11 variables, 7 had "excellent" completion. The variable with the lowest completion proportion (40.0% = "very poor") in perinatal death investigation sheets was "partner occupation." Among 19 variables related to prenatal care, 4 were classified as having "excellent" completion and 6 were considered as having "very poor" completion.

Among 21 birth-related variables, 9 (42.8%) had "excellent" and 5 had "very poor" (23.8%) filling levels. For the fetal component, the variable with the lowest completeness was "amniotic fluid odor" (7.5%), and for the preterm neonatal it was "caesarean section indication" (13.7%) (Table 3).

In the "family characteristics" block, among 12 variables, 8 were classified as having "regular" completion, and 4 as having "poor" completion. As for the fields related to "occurrence of death," among 11 variables, 3 had "excellent" completion, and 3 had "very poor" completion ("perinatal" general category). Variables with the best filling levels were "place of occurrence" (99.4%) and "necropsy" (99.4%), in the fetal component. In the preterm neonatal component, "place of occurrence" and "unit type" stood out with 100% completion (Table 4).

In the block of variables related to conclusions and recommendations, 5 (8.9%) were considered to have "excellent" completion. Variables with the best percentage of completeness in the perinatal general category were "avoidability classification," and whether the investigation changed or corrected the cause of death, with 100% completion for both (Table 5).

Table 1 – Descriptive statistics: completeness of perinatal death investigation sheets, according to variable block, Recife, Pernambuco, Brazil, 2014

Variable block	Age components											
	Perinatal				Fetal				Preterm neonatal			
	Mean ± SD	Median	Min.	Max.	Mean ± SD	Median	Min.	Max.	Mean ± SD	Median	Min.	Max.
Identification	82.5±18.05	96.1	40	100	84.4±18.96	94.7	44.4	100	92.2±19.83	97.9	32.6	100
Prenatal care	67.6±25.9	69.8	26.7	98.4	67.6±25.7	73.8	26.3	98.1	67.6±26.5	67.4	24.2	100
Birth care	74.1±31.6	87.1	10.6	100	66.2±37	81.9	7.5	100	76±30	89.5	13.7	100
Family characteristics	79.2±6	82.4	62.4	83.5	77.4±5	79.4	63.1	81.3	82.4±7.8	86.3	61.1	87.4
Occurrence of death	69.7±32.9	80	15.3	99.6	73.2±29.2	82.8	30	7.4	70.5±35.8	82.1	7.4	100
Conclusions and recommendations	78.6±22.9	85.7	12.2	100	80.9±19.8	85	10.6	100	86.1±17.1	91.6	14.7	100

Note: SD: Standard Deviation.

Table 2 – Completeness of variables in the "identification" block of perinatal death investigation sheets, Recife, Pernambuco, Brazil, 2014

Variables	Age components								
	Perinatal			Fetal			Preterm neonatal		
	n	%	Cl*	n	%	Cl*	n	%	Cl*
Moment of death	255	100.0	E	160	100.0	E	95	100.0	E
Sex	255	100.0	E	160	100.0	E	95	100.0	E
Age	94	98.9	E	NA			94	98.9	E
Race/color	200	78.4	P	110	68.8	P	90	94.7	G
Mother's age	253	99.2	E	158	98.8	E	95	100.0	E
Mother's race/color	200	78.4	P	110	68.8	P	90	94.7	G
Mother's level of education	244	95.7	E	151	94.4	B	93	97.9	E
Mother's occupation	245	96.1	E	152	95.0	B	93	97.9	E
Marital status	215	84.3	RE	122	76.3	P	93	97.9	E
Partner occupation	102	40.0	VP	71	44.4	VP	31	32.6	VP
Area covered by the FHS	250	98.0	E	156	97.5	E	94	98.9	E
Block average	82.5			84.4			92.2		

Note: *classification; FHS = Family Health Strategy; E = excellent; G = good; RE = regular; P = poor; VP = very poor, NA = not applicable

Table 3 – Completeness of variables in the “prenatal care” and “birth care” blocks of perinatal death investigation sheets, Recife, Pernambuco, Brazil, 2014

Variables	Age components								
	Perinatal			Fetal			Preterm neonatal		
	n	%	CI*	n	%	CI*	n	%	CI*
Prenatal care									
Prenatal	251	98.4	E	156	97.5	E	95	100.0	E
Prenatal unit type	204	80.0	R	135	84.4	RE	69	72.6	R
Starting month of prenatal period	199	78.0	R	123	76.9	R	76	80.0	R
Number of medical consultations	205	80.4	RE	129	80.6	RE	76	80.0	R
Familial antecedents	149	58.4	R	94	58.8	R	55	57.9	R
Personal antecedents	116	45.5	MR	69	43.1	MR	47	49.5	MR
Complementary examinations	161	63.1	R	104	65.0	R	57	60.0	R
Procedures	178	69.8	R	118	73.8	R	60	63.2	R
Risk factors	120	47.1	MR	74	46.3	MR	46	48.4	MR
Complications	170	66.7	R	106	66.3	R	64	67.4	R
Treatment	84	32.9	MR	52	32.5	MR	32	33.7	MR
Number of previous pregnancies	251	98.4	E	157	98.1	E	94	98.9	E
Number of vaginal deliveries	233	91.4	B	142	88.8	RE	91	95.8	E
Number of cesarean deliveries	232	91.0	B	141	88.1	RE	91	95.8	E
Number of live births	250	98.0	E	156	97.5	E	94	98.9	E
Number of fetal losses/abortions	251	98.4	E	157	98.1	E	94	98.9	E
Interval between the last two pregnancies	79	31.0	MR	56	35.0	MR	23	24.2	MR
Pre-gestational weight	74	29.0	MR	43	26.9	MR	31	32.6	MR
Maternal height	68	26.7	MR	42	26.3	MR	26	27.4	MR
Birth care									
Place of birth	255	100.0	E	160	100.0	E	95	100.0	E
Birth unit type	252	98.8	E	158	98.8	E	94	98.9	E
Partogram	49	51.6	R		NA		49	51.6	R
Induction of childbirth	211	82.7	RE	134	83.8	RE	77	81.1	RE
Rapid syphilis test	222	87.1	RE	137	85.6	RE	85	89.5	RE
HIV rapid test	198	77.6	R	126	78.8	R	72	75.8	R
Gestational age	253	99.2	E	158	98.8	E	95	100.0	E
Type of pregnancy	255	100.0	E	160	100.0	E	95	100.0	E
Type of birth	255	100.0	E	160	100.0	E	95	100.0	E
Caesarean section indication	53	20.8	MR	40	25.0	MR	13	13.7	MR
Pre-delivery intervention	36	14.1	MR	15	9.4	MR	21	22.1	MR
Sac rupture time	76	29.8	MR	34	21.3	MR	42	44.2	MR
Amniotic fluid odor	27	10.6	MR	12	7.5	MR	15	15.8	MR
Appearance of amniotic fluid	111	43.5	MR	60	37.5	MR	51	53.7	R
Birth weight	255	100.0	E	160	100.0	E	95	100.0	E
Assisted birth	219	85.9	RE	128	80.0	R	91	95.8	E
Apgar score 1-min	91	95.8	E		NA		91	95.8	E
Apgar score 5-min	92	96.8	E		NA		92	96.8	E
NB with issues	84	88.4	RE		NA		84	88.4	RE
NB length of stay in maternity ward	94	98.9	E		NA		94	98.9	E
Reason for permanence	70	73.7	R		NA		70	73.7	R

Note: *classification; NB = Newborn; E = excellent; G = good; RE = regular; P = poor; VP = very poor, NA = not applicable

Table 4 – Completeness of variables related to “family characteristics” and “occurrence of death” in perinatal death investigation sheets, Recife, Pernambuco, Brazil, 2014

Variables	Age components								
	Perinatal			Fetal			Preterm neonatal		
	n	%	CI*	n	%	CI*	n	%	CI*
Family characteristics									
Private health plan	194	76.1	P	120	75.0	P	74	77.9	P
Family income	196	76.9	P	122	76.3	P	74	77.9	P
Number of inhabitants in the residence	210	82.4	RE	127	79.4	P	83	87.4	RE

To be continued

Table 4 (concluded)

Variables	Perinatal			Age components					
	n	%	CI*	Fetal			Preterm neonatal		
	n	%	CI*	n	%	CI*	n	%	CI*
Number of ≤ 5 years old children	159	62.4	P	101	63.1	P	58	61.1	P
Number of dormitory rooms	210	82.4	RE	127	79.4	P	83	87.4	RE
Dwelling type	210	82.4	RE	128	80.0	P	82	86.3	RE
House construction material	211	82.7	RE	129	80.6	RE	82	86.3	RE
Water supply	213	83.5	RE	130	81.3	RE	83	87.4	RE
Destination of bodily waste	212	83.1	RE	129	80.6	RE	83	87.4	RE
Destination of trash	210	82.4	RE	127	79.4	P	83	87.4	RE
Access to health services	205	80.4	RE	126	78.8	P	79	83.2	RE
Availability of medical consultations	195	76.5	P	120	75.0	P	75	78.9	P
Occurrence of death									
Place of occurrence	254	99.61	E	159	99.4	E	95	100.0	E
Unit type	253	99.22	E	158	98.8	E	95	100.0	E
Hospital length of stay	89	93.68	G	NA			89	93.7	G
Sector of occurrence	76	80.00	P	NA			76	80.0	P
Child/mother transferred from another unit	204	80.00	P	113	70.6	P	91	95.8	E
General condition at admission	39	15.29	VP	NA			35	36.8	VP
Diagnostic hypothesis at admission	165	64.71	P	87	54.4	P	78	82.1	RE
Final diagnosis	228	89.41	RE	152	95.0	G	76	80.0	P
Necropsy	247	96.86	E	159	99.4	E	88	92.6	G
Necropsy site	68	26.67	VP	61	38.1	VP	7	7.4	P
Necroscopic report	55	21.57	VP	48	30.0	VP	7	7.4	P

Note: *classification; E = excellent; G = good; RE = regular; P = poor; VP = very poor, NA = not applicable

Table 5 – Completeness of variables in the conclusions and recommendations block of perinatal death investigation sheets, Recife, Pernambuco, Brazil, 2014

Variables	Perinatal			Age components					
	n	%	CI*	Fetal			Preterm neonatal		
	n	%	CI*	n	%	CI*	n	%	CI*
Investigation changed/corrected cause of death	255	100.0	E	160	100.0	E	95	100.0	E
Investigation changed another field of the death declaration	254	99.6	E	160	100.0	E	94	98.9	E
Investigation changed another field of the live birth declaration	87	96.1	E		NA		87	91.6	G
Issues identified after investigation	249	97.6	E	155	96.9	E	94	98.9	E
Access failure									
To family planning	231	90.6	G	142	88.8	RE	89	93.7	G
To prenatal care	235	92.2	G	144	90.0	G	91	95.8	E
To childbirth assistance	223	87.5	RE	136	85.0	RE	87	91.6	G
To maternity ward newborn assistance	69	72.6	P		NA		69	72.6	P
Due to family difficulties	212	83.1	RE	127	79.4	P	85	89.5	RE
Care failure									
Family planning	229	89.8	RE	141	88.1	RE	88	92.6	G
Prenatal care	234	91.8	G	145	90.6	G	89	93.7	G
Delivery	224	87.8	RE	135	84.4	RE	89	93.7	G
Maternity ward newborn assistance	68	71.6	P		NA		68	71.6	P
Due to family difficulties	214	83.9	RE	127	79.4	P	87	91.6	G
External causes	31	12.2	VP	17	10.6	VP	14	14.7	VP
In primary care coverage	227	89.0	RE	138	86.3	RE	89	93.7	G
In reference and counter-reference	198	77.6	P	117	73.1	P	81	85.3	RE
In high-risk prenatal care	196	76.9	P	116	72.5	P	80	84.2	RE
In a bed in the high-risk pregnancy intensive care unit	192	75.3	P	113	70.6	P	79	83.2	RE
In a bed in the neonatal intensive care unit	80	31.4	VP		NA		80	84.2	RE
In the control center	192	75.3	P	113	70.6	P	79	83.2	RE
In inter-hospital transport	191	74.9	P	113	70.6	P	78	82.1	RE
In blood banks	77	30.2	VP		NA		77	81.1	RE
Avoidability classification	255	100.0	E	160	100.0	E	95	100.0	E

Note: *classification; E = excellent; G = good; RE = regular; P = poor; VP = very poor, NA = not applicable.

DISCUSSION

The completeness of the research records was classified as “good,” and the comparison between components showed that almost all of the analyzed data blocks had better completeness in the preterm neonatal component. Data on stillbirths are usually deficient and of inferior quality, mainly in respect to sociodemographic and care-related information^(5,14). The low quality of data on stillbirths limits its use for the proposition of actions directed at its confrontation⁽²⁾.

The importance (or lack thereof) given to filling information on fetal mortality is one of the main factors associated with incompleteness of data⁽¹⁵⁾. In Brazil, despite the declining trend of the stillbirth rate, it is still almost twice as high the one found in developed countries⁽¹⁶⁾. In addition, mortality differentials between states are significant⁽¹⁷⁾.

Most “identification” block data were rated as “excellent” in both components, similar to what was found by recent assessments of vital statistics information systems, which demonstrated improved data quality^(9,11). After the implementation of infant and fetal death surveillance in Recife, confirmation of provided information became a requirement, and the proportion of blank and ignored fields was significantly reduced⁽¹⁰⁾.

Regarding variables in the “prenatal care” block, “risk factors,” “personal antecedents,” “interval between the last two pregnancies,” “pre-gestational weight” and “maternal height” presented “very poor” completeness. Admittedly, data on pre-existing maternal conditions are poorly reported⁽¹⁸⁾. While an interview with the mother is considered the gold standard for obtaining information on maternal behaviors⁽¹⁹⁾, the inadequate completion of this information makes it difficult to understand the circumstances of death, the evaluation of the assistance offered to the pregnant woman and to the fetus or newborn, and the evaluation of socioeconomic conditions. This data could assist in interventions to reduce the occurrence of avoidable deaths^(10,13).

A study carried out in Alagoas⁽¹¹⁾ showed that the filling level of variables related to prenatal care was poor, and a study carried out in Pernambuco⁽²⁰⁾ also pointed out a greater inadequacy of the prenatal care block in investigation sheets of a group of children who did not receive medical discharge after birth. Inadequate completion of information on prenatal care makes it difficult to assess maternal and child care, and perpetuates deficiencies mainly in primary care and in the prevention of avoidable deaths. In this sense, a study showed that mothers with inadequate prenatal care have a higher chance of death⁽²¹⁾, and a recent evaluation of quality of prenatal care provided in the basic health network throughout Brazil revealed that only 15% of respondents received quality care according to the following parameters: number of visits, vaccination status, prescription of ferrous sulfate, physical examination, medical advice and complementary examinations⁽²²⁾.

Birth information obtained a classification of “good.” A systematic review study found that procedures and conditions that occur close to birth have more reliable records, probably due to better access to clinical records that make it possible to complete the information⁽²³⁾. At the national level, the Information

System on Live Births (Sinasc) was evaluated as good quality and as having high completeness⁽²⁴⁾. A hospital investigation of perinatal deaths in Ethiopia showed their avoidability, and that factors related to the health worker were the most commonly identified, followed by those referring to the patient and administrative factors⁽¹⁹⁾. Measures to improve the quality of care are linked to the improvement of information quality and completeness, in order to allow the recognition of each health service’s current situation, allowing for the planning of adequate interventions.

Variables related to family characteristics were classified as “good.” The evaluation of the socioeconomic context in which death occurred contributes to the planning and implementation of intersectoral actions^(10,25).

The completeness of data related to conclusions and recommendations was good, an indication that the completion of the investigation steps was satisfactory and provided an assessment of problems, as well as the suggestion of measures to prevent avoidable perinatal deaths^(8,10). The change or correction of the cause of death can be considered indicative of the adequacy of infant death surveillance actions⁽²⁶⁾.

Limitations of this study

The study is limited by its use of a non-specific completeness score to evaluate perinatal death investigation sheets. However, the small number of studies analyzing the investigation sheet and its contribution to death surveillance attests this study’s relevance.

Contributions to the area of nursing, health or public policy

Complete epidemiological investigation optimizes the targeting of public resources and actions to reduce perinatal mortality. Analysis of completeness allows the evaluation of the information and contributes to its qualification. For the death investigation to be fully successful, it is essential for it to have reliable information, so that it can properly intervene on the identified gaps and propose effective measures for the prevention and reduction of perinatal mortality.

CONCLUSION

This assessment of the completeness of perinatal death investigation sheets ranked overall completion level as “good.” However, there are considerable differences in completeness between variables and components. In order for death surveillance to play its role of providing information on deficiencies in the maternal and child healthcare process and help direct interventions to the issue of avoidable deaths, it is crucial to ensure the proper filling out of the investigation sheet.

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