

Production of data for the Pre-Natal Information System in basic health units*

A PRODUÇÃO DE DADOS PARA O SISTEMA DE INFORMAÇÃO DO PRÉ-NATAL EM UNIDADES BÁSICAS DE SAÚDE

LA PRODUCCIÓN DE DATOS PARA EL SISTEMA DE INFORMACIÓN DEL PRENATAL EN UNIDADES BÁSICAS DE SALUD

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ABSTRACT

The objective of this study was to analyze the process of data production for Information System Prenatal and Birth (SISPRENATAL) in Basic Health Units of Cuiabá, MT, Brazil. This qualitative, exploratory and descriptive study was developed in eight units of Basic Health Coordination, through semi-structured interviews with professionals who worked with SISPRENATAL (nurses, physicians, managers and data entry) and comparative document analysis between system data and the written patient records. Data analysis revealed a lack of definition of the team's participation in the production of data and different modes of completing forms within the system. Professionals' knowledge about many aspects of the forms was divergent, completion of the forms was inadequate, and flaws in the computerized system were identified. Measures such as professional training, the review of the system and its forms are indispensable for the production of reliable information about prenatal care in the municipality.

DESCRIPTORS

Prenatal care
Information systems
Primary Health Care
Obstetrical nursing

RESUMO

Esta pesquisa objetivou analisar o processo de produção de dados para o SISPRENATAL em Unidades Básicas de Saúde de Cuiabá, MT, Brasil. Um estudo qualitativo, exploratório e descritivo foi desenvolvido em oito unidades da Coordenadoria da Atenção Básica por meio de entrevistas semiestruturadas com profissionais que trabalham com o SISPRENATAL (enfermeiros, médicos, gestores e digitador) e análise documental comparativa entre os dados do sistema e os prontuários. A análise dos dados revelou inexistência de definição da participação da equipe na produção dos dados e modos diversos de preenchimento das fichas do sistema. O conhecimento dos profissionais sobre muitos aspectos das fichas foi divergente, o preenchimento das fichas foi feito de modo inadequado e foram verificadas falhas no sistema informatizado. Medidas como a capacitação dos profissionais, a revisão do sistema e de suas fichas são indispensáveis para a produção de informações fidedignas sobre a assistência pré-natal no município.

DESCRIPTORIOS

Cuidado pré-natal
Sistemas de informação
Atenção Primária à Saúde
Enfermagem obstétrica

RESUMEN

Esta investigación tuvo como objetivo analizar el proceso de producción de datos para el SISPRENATAL en las Unidades Básicas de Salud de Cuiabá, MT, Brasil. Estudio cualitativo, descriptivo y exploratorio; fue realizado en ocho unidades de la Coordinación de Atención Básica por medio de la aplicación de entrevistas semiestructuradas a los profesionales que trabajan con el SISPRENATAL (enfermeras, médicos, gerentes y digitalizador) y un análisis documental comparativo entre los datos del sistema y las historias clínicas. El análisis de los datos mostró la falta de definición de la participación del equipo en la producción de datos y puso en relieve diversas formas de llenado de la fichas del sistema. El conocimiento de los profesionales acerca de muchos aspectos de las fichas, fue divergente, el llenado de las fichas se produjo incorrectamente y se verificaron fallas del sistema informático. Medidas como la capacitación de los profesionales, la revisión del sistema y de sus fichas resultan indispensables para la producción de información confiable sobre la atención prenatal en el municipio.

DESCRIPTORIOS

Atención prenatal
Sistemas de información
Atención Primaria de Salud
Enfermería obstétrica

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INTRODUCTION

The Ministry of Health (MS), by means of Ordinance No. 569 of June 1, 2000, established the *Programa de Humanização no Pré-Natal e Nascimento* (Program for Humanization of the Prenatal Period and Birth) (PHPN) in the *Sistema Único de Saúde* (Unified Health System-SUS), with the objective of developing health promotion, prevention and health care actions for pregnant women and newborns, promoting increased access to these actions, increasing the quality and capacity within obstetric and neonatal care, as well as its organization and regulation⁽¹⁾.

The PHPN has established minimum care practices to be performed and offered to the basic model municipalities for the organization of obstetrical care⁽²⁾. According to the program, adequate prenatal and postpartum care must ensure the following procedures: early identification of pregnant women (up to 120 days from the date of last menstrual period); a minimum of six follow-up visits, preferably one in the first trimester, two in the second and three in the third trimester of pregnancy, and one puerperal consultation (up to 42 days after delivery); routine laboratory tests and everything necessary; administration of tetanus vaccine (immunizing dose or booster, according to the recommended schedule); educational activities; classification of gestational risk and assurance of access to a referral center for outpatient and/or hospital care for pregnant women classified as high risk⁽¹⁾.

The transfer of financial resources depends on adherence to these activities and on following them and also on the formalization of adherence of the municipality of the PHPN. A monitoring system called SISPRENATAL was enabled, populated systematically with data related to the care of pregnant women⁽³⁻⁵⁾. With the publication of Ordinance 1067⁽⁶⁾, the signature of the term of adherence was dispensed and the system became available to all districts.

This *Sistema de Informação em Saúde* (Health Information System - SIS) allows the characterization of the care provided during pregnancy and postpartum, expanding the role of information on this particular type of assistance, allowing each manager to take the necessary measures, with a view to ensuring compliance with the program requirements and the payment incentives, presupposing that it will lead to improving the quality of antenatal care⁽⁴⁾.

The program includes three instruments for data collection: a Form of Registration of the Pregnant Woman (FCG), a Daily Record Care Form (FRDA), and a Form for Registration of the Interruption in Pregnancy Care^(a), to be completed

^(a) Form inserted for nutrition of SISPRENATAL in September 2011. As this occurred after the data collection, considerations about the completion of this form will not be included in the analysis of this study.

by the professionals (physicians or nurses) who attend pregnant and postpartum women in the *Unidade Básica de Saúde* (Basic Health Units-UBS). Subsequently, the data must be keyed into the SISPRENATAL computer system, preferably in the same health care setting, and transferred to the *Secretaria Municipal de Saúde* (Municipal Health Service - SMS) on disk or by email⁽⁷⁾.

In the city of Cuiabá, MT, the forms are completed in every UBS, polyclinics, and in the Service of Specialized Care that attends pregnant women with the HIV virus. Once completed, they are forwarded to the *Coordenadoria de Atenção Básica à Saúde* (Primary Health Care Coordinator - CABS), located in the SMS, where the data are entered into the computer system and transferred to other levels of management.

Regarding these operational aspects, a study that evaluated the coverage of PHPN according to the minimum requirements and process indicators by means of comparison between the information of the chart of the pregnant women and the SISPRENATAL showed that any obstruction in transferring data to the forms, and after into the system,

may result in incomplete or unavailable information⁽⁸⁾. Moreover, SISPRENATAL seems to present failures in the minimum recommended registration procedures by PHPN, when compared to other sources of information, such as medical records⁽⁹⁾.

Thus, considering the importance of carefully completing the collection of instruments for providing reports and viable results for utilization of information in the planning of local activities⁽¹⁰⁾ and the lack of studies that address the local production of data for SISPRENATAL, this study aimed to analyze the process of data production for the SIS in UBS in the city of Cuiabá, MT.

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METHOD

This was a descriptive, exploratory study with a qualitative approach, conducted in eight UBS of Cuiabá, MT, randomly selected, with four Health Centers (HC) and four *Unidade de Saúde da Família* (Family Health Units - USF), one from each health district. The CABS was also selected as a study site, since it was responsible for monitoring the work relative to SISPRENATAL in the units.

The study subjects were 12 health professionals who performed the monitoring of pregnant women and completed the data sheets in SISPRENATAL at selected UBS; eight were nurses, one at each selected UBS for the study, and four were physicians. In three HC, physicians did not complete the SISPRENATAL data sheets, and so they were excluded from the study. In one USF the physician was away from his activities for medical licensing during the period of data collection.

The professionals working with SISPRENATAL in the CABS participated in or were responsible for populating the information system, as were the managers of the basic level of care (technician responsible for the Technical Area for Women's Health, director and coordinator of Primary Care).

Data collection occurred during the period from May 2 to August 10, 2011 and consisted of semi-structured interviews and documentary analysis. A script with guiding questions was used in the interviews, according to the activity performed by the professional in relation to SISPRENATAL.

The documentary analysis was implemented by comparing the record of monitoring visits of pregnant women (a type of report issued by the SISPRENATAL computerized system) and notations in the records or specific form (if it was the case of the unit), as regarding care provided to 45 pregnant or postpartum women, selected by the criterion of service period for which the data related to their monitoring were transferred to the system. The technique aimed to verify the existence of possible incompatibilities between the data produced locally and from the system, indicating problems in the production process of data for SISPRENATAL that might not be evident in the statements of the interviewees or that, confronted with the words, complement the analysis desired.

For data analysis the technique of thematic content analysis was used, a modality which seeks *to discover the meaning units that compose a communication whose presence or frequency mean something for the analytical objective pursued*⁽¹¹⁾.

The parent project of which this article is a part was submitted to the Ethics Committee in Research of the *Hospital Universitário Júlio Muller*, with final approval No. 001/CEP- HUJM/2011. All participants signed the Terms of Free and Informed consent, in accordance with the ethical principles required for this type of research.

RESULTS

Inexistence of definition of staff participation in the production of local data

The results showed that, in the district, the units have different ways of organizing activities related to SISPRENATAL, even with regard to the professional category designated for completing the forms. The FCG should be completed by physicians or nurses, depending on who makes the first consult with the mother, after the pregnancy confirmation. However, this function has been performed, in the majority of times, by the professional nurse or, as in the case of one unit, the FCG was completed by a professional who should not do such a task.

Regarding the FRDA, the completion should be consistent with the professional who performs the service. Thus, physicians and nurses of the USF complete the data sheets alternatively, in compliance with the established routine in

the city. In the HC, only the physician completes the FRDA because in general, the nurse in daily practice in this service does not perform monitoring of pregnant women.

No problems were verified related to health care professionals that completed the FRDA in the USF. However, in the majority of the HC, the gynecological and obstetrical physicians performed the monitoring of pregnant women, but did not complete the SISPRENATAL data sheet, as shown by the following lines:

They do not... the physician doesn't do it here. What do they do there? I think they listen to the FHR... what else... uterine height, only. This here is all ours. It's going all finished to him. He just does the uterine height, the FHR of the baby and, sometimes... everything is complete, the little card, everything cute (Nurse of CS 2).

The forms, they are only in pre-consultation, because all of them are completed at the time of pre-consultation. Then, everything is already completed for the gynecologist (Nurse CS 4).

In the HC where the physicians complete the FRDA, it is partially completed, because the initial field sare populated during the pre-consultation by professionals who do not perform the monitoring of pregnant women:

Then we pick up the data sheet, already left the data sheet with the women of the pre-consultation, the technician, then they populate the form with the SISPRENATAL number and the name of the patient. At consultation time, the physician will complete the exam required, whether the woman is low risk or high risk. And then he will complete it. Then, you can see that the letters are different. The women write down the number, the name and number of the consultation. And he just writes this here, [field of exams, vaccine, risk classification and postpartum consultation] (Nurse CS 1).

Furthermore, in the HC where this was found, the physicians that followed medical students in internship or residents in Obstetrics and Gynecology, even those performing monitoring of pregnant and postpartum women, do not complete the FRDA.

Diversity in the manner of completing the data sheet

For the proper registration of pregnant women in SISPRENATAL, pregnancy verification is essential, by means of the β HCG exam, ultrasonography or auscultation of fetal heart rate. In this respect, the statements indicated that professionals met this regulation for the adequate completion of the FCG.

In both forms, document analysis enabled the realization that some fields related to health establishment were neglected by the professionals, such as the unit code of SIASUS, the City Code in IBGE, and the UF Code in IBGE. According to the data entry person, it is not mandatory to complete these fields, because after choosing the Health Care Establishment name, the system automatically generates the required code.

With respect to the fields of identification of the pregnant woman at FCG, their completion is indispensable for the consolidation of data in the computerized system of SIS-PRENATAL of the fields: number of the pregnant woman in SIS-PRENATAL, name of the pregnant woman, date of birth, and name of the mother of the pregnant woman. However, the understanding of the professionals of the units and the responsible technician for women's health, the fields for the address, documentation, race and mother's color are also required, and their absence may block them from registration in SIS-PRENATAL or their data from being entered. According to the data entry person, there is a specific system coding for when these fields are not completed:

No, race and color... I... it is zero which is *not informed*. So you do not need it, you know? One little thing like that, you have to go back. So I try my best... the maximum in not having to return to these forms, understand? (Data Entry Person).

If you don't have the address, you have to write, *Address Not Given*. But generally, when you don't have the address, which I think has never happened here not having the full address, I go back, okay? But if you write *Address not given*, the system will accept it (Data Entry Person).

For registration of the pregnant woman, the current pregnancy data was required (date of last menstrual period – LMP, and date of first antenatal consultation), enabling the system to check whether or not the woman was picked up early, professionals have knowledge that the completion of these fields is essential and documentary analysis showed that in many units the records were similar between the data sheet and the report of SIS-PRENATAL. However, an interval longer than 28 days between LMP and the date of the first prenatal consultation was necessary for the system accepting the registration (time is reserved for the diagnosis of pregnancy) did not appear in the words of the professionals of the UBS, being highlighted only by the data entry person and the technical manager.

Another issue that must be considered at the time of the pregnant woman's registration is that, on the same date, you should not be completing the FRDA, since that, in front of the computerized system, the pregnant woman must first be registered so that afterwards her monitoring data can be inserted. However, in some units, it was verified by means of interviews and documentary analysis that the FRDA was completed on the same day of registration.

Furthermore, according to the statements of some professionals, pregnant women come to prenatal consults without registration in SIS-PRENATAL:

As I told you, the patient comes in here for consultation, then she is forwarded to the nurse for registration. Sometimes, the patient hasn't done the registration, do you understand? So sometimes she has two, sometimes three consultations before doing the registration. Do you understand? So sometimes she returns with tests result, you talk like that... because when she registered at SIS-PRENATAL, the nurse

gives the maternity card to her, when she returns, sometimes with exams, she doesn't have the maternity card. You ask her, *Where's your maternity card?*, *Oh, I didn't do it yet*. I mean, if you didn't get your maternity card, you also don't have the SIS-PRENATAL (Physician of CS 1).

Many times, it happens. Sometimes, because she does not know the date of the last menstrual period, it is unknown, or because she did not bring the document and never brings that document, despite being told at every visit to bring it (Nurse CS 4).

About the detailed completion of the FRDA, problems were not verified about the fields such as the date, name of establishment of health care, county name, UF acronym, number of the pregnant woman in the SIS-PRENATAL, her name, essential data for data transfer related to care of pregnant women in the SIS-PRENATAL system.

In the fields of Prenatal and Puerperal Consultation, the professionals know that they must complete the query with the Brazilian Occupational Code of the professional who performed the consult, verified in the legend on the form. However, reports demonstrated that for the professional nurse to complete the form, he must register his code, even if he did not perform the consultation.

The document analysis revealed that this failure extended to various units studied. In some, records of pregnant women were identified, in the medical records, for a consultation by a physician, but in SIS-PRENATAL it indicated the consult was with a nurse. In a HC even, although the consultation was performed by the physician, in the SIS-PRENATAL is contained the registration of nurses in the PSF. The inverse registration (nursing consults that appeared in the system as medical consults) also occurred.

With respect to the proper registration of the postpartum consult, not performed in many units, several problems were identified. One of the motives is the difficulty in making the postpartum patient return to the unit to perform the consult.

Another difficulty that I have here: a pregnant woman who is not in our coverage area. You don't find her after. Postpartum, I have a deficiency of... it is this, they don't come back in the puerperium. Most of them don't come for postpartum consultation. Even if you explain it in every consult, right? From the first, I talk to them about the importance of the postpartum period, she must return, make at least two visits, up to 42 days after delivery. But they don't come back (Nurse CS 3).

Then, after they give birth, we have difficulty to have them return. They do not want to come back, because, I think, they are tired of coming here for... after thirty-six weeks that they have to keep coming every week, it seems that when they have a baby, they want to be a bit distant (Physician USF 2).

In other units, it was realized that the medical professional is unaware of the need to complete the registration.

No, because I was not asked to do a postpartum consult. I check only pregnant women here in this paper. After she has a baby, I was never asked to do this registration too. I attend the patient, but this form for puerperal patients is not completed. Understand? Nobody told me that I have to do this. Even because... most of the time, the girl that makes the pre-consult, that completes the patient's name here, writes the SISPRENATAL number and I do the rest. So she has... she completes the patients' names. She places no puerperal patient here, understand? She just writes the name of the pregnant women. The guidance that was made to me was to complete the pregnant data sheet but not for the puerperal women (Physician of CS 1).

Regarding the registration of the recommended tests, it was found that in most units, the record is made at the time the woman presents the results to the professional, marking with an X the tests analyzed by the physician or nurse who performed the consult. However, in the only HC that the physician completed the SISPRENATAL form, it was verified that this professional marked the exams even if the results have been presented in a previous consult.

But, well, the patient comes, I attend her, I saw the exam sometime in the prenatal period, I check that it was seen. Each consult. Not only when she gives it to me, but every time she comes, I check that I saw... that she, at some point gave these results tests to me (Physician of CS 1).

The checking of the immunization of the pregnant woman, in most units, is made with proof of vaccination, by marking the maternity card or in a vaccination card. In one unit (HC), the physician said that there was no need for the mother to present proof of immunization. Some reports also indicated that verification of immunization and its registration are solely nursing responsibilities.

Yeah, this one is also marked on the maternity card. That is just the nurse who marks it all there. Vaccines and everything... I check if everything is in order, if everything is fine. *Are the vaccinations all up to date?* If it is, then, okay, everything is okay. Here everything is already marked (Physician USF 4).

Regarding the schedule of postpartum consult, exams and tetanus vaccine, the document analysis showed that in many cases the records of accomplishment or not of these criteria overlapped between what was observed in the data sheet and in SISPRENATAL. However, in some units, there is a report in the medical record, but it does not transfer into the system, and also the checking requirements in SISPRENATAL without record in the medical data sheet. Regarding immunization, there was also the record of doses or reinforcement, after completing the system with data from the pregnant woman that had the immunization schedule completed.

As for the record of the type of delivery, only one professional said that he did not complete it, because he did not complete the record when it came to the postpartum consult. The document analysis showed, however, that

some records of the type of birth in the charts did not appear in the report of SISPRENATAL.

To record the gestational risk at every consult, the professionals followed a legend in the record, classifying pregnant women with low or high risk. In units where medical professionals did not complete the forms, the nurses checked in the records for some information indicative of high-risk pregnancy, to inform the FRDA, or when physicians diagnosed high risk, they called the nurse during the consult to give the appropriate referrals, when they should pass the data through to the FRDA.

The documentary analysis on completion of this criterion showed that generally, when mothers had no evidence of high-risk pregnancies in the medical record, SISPRENATAL received low risk information (adequate record). However, there was a UBS in which it was observed that, even with no evidence in the medical record, the patient was classified as high risk, while women who had these signs were not classified in the system.

Another relevant aspect found in the study concerned the minimum interval of 15 days between recommended prenatal visits for transfer to the system⁽¹²⁾. In some units, however, it was verified that the registration had an interval less than the standard. In addition, the responsible technician for women's health, in his words, showed that he was unaware about this recommended interval and stated that the system accepted the insertion of consults regardless of the interval in which they occurred, which coincides with the results of documentary analysis. The analysis of the records compared with SISPRENATAL data showed that the system accepted the record of a prenatal consult after a puerperal consult.

DISCUSSION

The results presented showed that, in the city of Cuiabá, most professionals did not recognize the importance of the registration of data related to the prenatal care and childbirth being done by the professional who actually collected it, so that the information generated was reliable. Thus, nurses affected the production of reliable information when completing forms with unverified data for them and, at the same time, medical professionals did not aggregate the bureaucratic function of data registration in the clinical care they performed.

Corroborating the results of this study, research that aimed to know the perception of the PSF professionals about SIS, also showed that nursing professionals routinely added more functions than other health professionals when it came to recording information⁽¹⁰⁾. Another study that aimed to critically examine the quality of health information from secondary data from two other national SIS showed a higher level of omissions in completing the required fields in a form of exclusive responsibility of the medical professional. According to the authors, this is due to the fact that

these professionals did not understand the importance of the information generated by this tool for information, a source of basic data for planning and evaluation of the assistance, which may also justify the findings of this study regarding the SISPRENATAL⁽¹³⁾.

This research also revealed that other professionals (nursing technicians) were inappropriately included in the local production of data for SISPRENATAL, making records for which they were not responsible, which may impair the reliability of the generated information. The same was found in completion of death certificates for another Brazilian SIS⁽¹³⁾.

The fact that physician-professors did not complete the forms and therefore did not pass on this activity to students indicated that information about pregnant women that they attended was not passed to the SISPRENATAL. With this, the system will not reflect the reality of the city and the UBS does not receive financial resources.

As regards the manner of completing the forms of SISPRENATAL, the requirement of pregnancy confirmation for registration of a pregnant woman and the minimal identification of the unit in each of the forms appeared as observed points, and were adequately recorded by professionals. However, several other aspects showed to be different between the units and many times the norms established for completion were unknown to the professionals, reflecting directly on the quality of the information.

Negligence in completing some fields relating to codes that identified the city in two studied forms, necessary for populating the system, led to the conclusion that its permanence on the forms contributed to the records being assessed as incomplete.

The analysis also revealed problems with respect to required fields, mainly in the FCG. In this regard, many times the opinions about the appropriate completion were divergent between the data entry person and other professionals (physicians, nurses and managers), indicating the ignorance on the part of the latter as to the operation of the computerized system of SISPRENATAL (fields that the system considers mandatory). This indicates that professionals are not systematically trained to work with this SIS. Furthermore, the lack of standardization regarding fields that necessarily must be completed for submission into the system can also be linked to lack of access to manual completion of the SISPRENATAL forms⁽¹²⁾.

Another outcome of this study was the inappropriate completion of the FRDA on the same day on which the registration is performed. However, this question is open to challenge, as the woman, knowing about her pregnancy, will not drive to the unit only for her registration in the SISPRENATAL. According to the Technical Manual for Pre-Natal and the Puerperium⁽¹⁴⁾, it is in the first contact with the professional service that the medical history of the woman must be collected, including data related to immunization and

pregnancy risk. Therefore, the FRDA could be completed simultaneously with FCG, without prejudice to the system.

Prenatal consults without proper registration in SISPRENATAL is another aspect that can compromise the reliability of information in SIS, because without proper registration pregnant women do not have their monitoring recorded in the FRDA, and consequently, in the computerized system of SISPRENATAL.

In many instances of analysis, the inadequacy of form completion at units studied became apparent. The completion of the FRDA with a code of a professional who did not effectively perform the service, marking exams even in consults in which they were not observed, the record of tetanus vaccination without adequate proof, in addition to several moments in which the document analysis showed divergence between the two sources of data analyzed, are examples of the records of the SISPRENATAL in the district that failed to conform as a reliable source for the production of accurate information about prenatal and postpartum care, findings that corroborated the results of other research about this SIS⁽⁸⁾. In addition to problems in completion, the findings of document analysis may indicate a failure in population of the database.

The problems relating to the record of puerperal consult meets the results of a study that examined the process indicators of the SISPRENATAL in the district of Quixadá, CE. The authors considered that the low percentages found were related to deficiencies in the record of postpartum consult⁽¹⁵⁾. In 2008, a PHPN evaluation published by MS also identified the scarce realization of puerperal consult as one of the weaknesses of the program⁽¹⁶⁾.

As evidenced by the words of the professionals, the deficiency in the record for this criterion on PHPN is directly related to the failure of care that exists in health services about having the puerperal woman return to UBS for monitoring, also affecting the record of delivery type. Therefore, in addition to instructing professionals about the importance of registration of the postpartum consult and type of delivery, this problem points to the need for investment in public awareness of the importance of postpartum monitoring.

Regarding the record of immunization of pregnant women, the assignment of this activity only to nursing professionals can lead physicians to neglect this field at the moment of completing the forms or to check some option indiscriminately. In a study conducted in the city of Juiz de Fora, the authors also found flaws in tetanus immunization record when auditing the cards of the pregnant women⁽¹⁷⁾. Thus, there are considerable problems in the registries of immunization of pregnant women in both the maternity card and in the FRDA.

Another important aspect revealed by the data obtained in the documentary analysis concerned the existence of problems in the SISPRENATAL computerized system itself, such as the inclusion of consults in intervals less than 15

days, contrary to the recommendations of the manual⁽¹²⁾, the record of tetanus vaccine even after the population of the system with full immunization of pregnant women, marking a consult with the PSF professional, even if it occurred in a HC, and the possibility of recording a prenatal consult after puerperal consult has been registered. This is evidence that the system has major flaws that require review, for production of information consistent with the reality of the city.

Therefore, agreeing with the perspective of authors who conducted studies about the quality of provided data by the Sistema de Informação Hospitalar (Hospital Information System - SIH-SUS), it is imperative to improve the data collection in health facilities, as well as to empower the various professionals that work in different phases of production for the SIS⁽¹⁸⁾, among them, the SISPRENATAL.

CONCLUSION

This study, that completed an analysis of the process of data production for SISPRENATAL in some UBS of Cuiabá, found that there were several factors that compromised the reliability of the information generated by this SIS, requiring the adoption of measures to overcome the faced obstacles.

REFERENCES

1. Brasil. Ministério da Saúde. Portaria n. 569/GM, de 1º de junho de 2000. Institui o Programa de Humanização no Pré-Natal e Nascimento, no âmbito do Sistema Único de Saúde [Internet]. Brasília; 2000 [citado 2012 fev. 16]. Disponível em: <http://dtr2001.saude.gov.br/sas/PORTARIAS/PORT2000/GM/GM-569.htm>
2. Serruya SJ, Lago TG, Cecatti JG. Avaliação preliminar do Programa de Humanização no Pré-Natal e Nascimento no Brasil. *Rev Bras Ginecol Obstet.* 2004;26(7):517-25.
3. Brasil. Ministério da Saúde. Portaria n. 570/GM, de 1º de junho de 2000. Institui o Componente I do Programa de Humanização no Pré-Natal e Nascimento – incentivo à assistência pré-natal no âmbito do Sistema Único de Saúde. Brasília; 2000.
4. Serruya SJ. A experiência do Programa de Humanização no Pré-Natal e Nascimento (PHPN) do Ministério da Saúde no Brasil [tese doutorado]. Campinas: Faculdade de Ciências Médicas, Universidade Estadual de Campinas; 2003.
5. Serruya SJ, Cecatti JG, Lago TG. O Programa de Humanização no Pré-Natal e Nascimento do Ministério da Saúde no Brasil: resultados iniciais. *Cad Saúde Pública.* 2004;20(5):1281-89.
6. Brasil. Ministério da Saúde. Portaria n. 1.067/2005. Institui a Política Nacional de Atenção Obstétrica e Neonatal. Brasília; 2005.
7. Brasil. Ministério da Saúde. SISPRENATAL [Internet]. Brasília; 2011 [citado 2011 out. 18]. Disponível em: <http://sisprenatal.datasus.gov.br/Sisprenatal/index.php?area=0501>
8. Andreucci CB, Cecatti JG, Macchetti CE, Sousa MH. Sisprenatal como instrumento de avaliação da qualidade da assistência à gestante. *Rev Saúde Pública.* 2011;45(5):854-64.
9. Andreucci CB, Cecatti JG. Desempenho de indicadores de processo do Programa de Humanização no Pré-Natal e Nascimento no Brasil: uma revisão sistemática. *Cad Saúde Pública.* 2011;27(6):1053-64.
10. Barbosa DCM, Forster AC. Sistemas de Informação em Saúde: a perspectiva e a avaliação dos profissionais envolvidos na Atenção Primária à Saúde de Ribeirão Preto, São Paulo. *Cad Saúde Coletiva.* 2010;18(3):424-33.
11. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. São Paulo: Hucitec; 2006.
12. Cuiabá. Secretaria Municipal de Saúde, Coordenação de Atenção Básica. Manual de preenchimento dos formulários de cadastro e atendimento das gestantes no SISPRENATAL. Cuiabá: SMS; 2006.
13. Graciano MMC, Araújo EW, Nogueira DA. Sistema de informação em saúde e atuação do profissional médico. *Rev Med Minas Gerais.* 2009;19(3):198-205.

A fundamental step to improve the health records relating to the PHPN of the district is the training of all professionals, even those who exercise their functions with the central management of SMS, focusing on the importance of health information for management assistance. Moreover, the need to review some of the recordfields and the computerized system of SISPRENATAL is also an important point that emerges from the study.

Inserting a new form in the context of production of data for SISPRENATAL did not reveal a limitation to the study, since the analysis of completion of two other forms presented an unexplored overview. By the other hand, the insertion of the Registration Form of the Interruption of Pregnancy Monitoring as one more form raises the need for further studies to analyze the process of professional training for its use, as well as how it has been completed.

As contributions to nursing, the area to which this study is linked, it should be noted that, given the increasing incorporation of management attributes to the practice of the nurse, in-depth knowledge about the SIS can provide important information for the performance of this professional in the management area.

14. Brasil. Ministério da Saúde; Secretaria de Atenção à Saúde. Pré-Natal e Puerpério: atenção qualificada e humanizada – manual técnico. Brasília; 2006.
15. Grangeiro GR, Diógenes MAR, Moura ERF. Atenção pré-natal no município de Quixadá-CE segundo indicadores de processo do SISPRENATAL. Rev Esc Enferm USP. 2008;42(1):105-11.
16. Brasil. Ministério da Saúde. Avaliação nacional do Programa de Humanização do Pré-Natal e Nascimento. Rev Saúde Pública. 2008;42(2):383-7.
17. Coutinho T, Monteiro MFG, Sayd JD, Teixeira MTB, Coutinho CM, Coutinho LM. Monitoramento do processo de assistência pré-natal entre as usuárias do Sistema Único de Saúde em Município do Sudeste Brasileiro. Rev Bras Ginecol Obstet. 2010;32(11):563-9.
18. Lemos C, Chaves LDP, Azevedo ALCS. Sistemas de informação hospitalar no âmbito do SUS: revisão integrativa de pesquisas. Rev Eletr Enferm [Internet]. 2010 [citado 2012 fev. 7];12(1):177-85. Disponível em: <http://www.fen.ufg.br/revista/v12/n1/v12n1a22.htm>

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