

## ADEQUACY OF PRENATAL CARE IN A FAMILY HEALTH STRATEGY PROGRAM FROM PORTO ALEGRE-RS

Cimone Noal HASS<sup>a</sup>, Luciana Barcellos TEIXEIRA<sup>b</sup>,  
Mariur Gomes BEGHETTO<sup>c</sup>

### ABSTRACT

The study aimed to evaluate the adequacy of low-risk prenatal care, as recommended by the Ministry of Health, concerning the minimum number of consultations, and identify possible associated factors. Prenatal care was evaluated in a historical cohort study of 95 pregnant women. Over 50% of the women underwent six or more prenatal consultations. The beginning of the prenatal care began in the first trimester of the gestation for 52% of the women, 84.2% of the women did all their prenatal medical tests, and only 16.8% had postpartum consultations. Prenatal assistance was considered adequate for 2.1% of the sample. A higher number of prenatal consultation was observed among women who had a partner and who had other children. The records reveal a low adequacy level with all minimum criteria established and few factors seem to explain this scenario.

**Descriptors:** Prenatal care. Pregnant women. Women's health. Community health nursing. Primary health care. Health services.

### RESUMO

*O estudo objetivou avaliar a adequabilidade da assistência pré-natal de baixo risco, conforme a recomendação do Ministério da Saúde, quanto ao número mínimo de consultas, e verificar possíveis fatores associados. Avaliou-se a atenção pré-natal de uma coorte histórica de 95 gestantes. Mais de 50% das mulheres fizeram 6 ou mais consultas de pré-natal. O início do pré-natal ocorreu no primeiro trimestre de gestação para 52% das mulheres; 84,2% das mulheres realizaram todos os exames de pré-natal e apenas 16,8% realizaram consulta no puerpério. A assistência pré-natal foi considerada adequada para 2,1% da amostra. Maior número de consultas pré-natal foi observado entre as mulheres com companheiro e com maior número de filhos. Os registros demonstraram baixa adequação à totalidade dos critérios mínimos estabelecidos e poucos fatores parecem explicar esse cenário.*

**Descritores:** Cuidado pré-natal. Gestantes. Saúde da mulher. Enfermagem em saúde comunitária. Atenção primária à saúde. Serviços de saúde.

**Título:** Adequabilidade da assistência pré-natal em uma estratégia de saúde da família de Porto Alegre-RS.

### RESUMEN

*El objetivo del estudio fue evaluar la adecuación de la atención prenatal de bajo riesgo, según lo recomendado por el Ministerio de Salud, y el número mínimo de consultas, e identificar los posibles factores asociados. Se evaluó la atención de prenatal de una cohorte histórica de 95 embarazadas. Más del 50% de las mujeres hicieron 6 o más consultas de prenatal. El inicio del prenatal se realizó en el primer trimestre de gestación para el 52% de las mujeres; el 84,2% de las mujeres realizó todos los exámenes de prenatal y sólo el 16,8% realizó consulta en el puerperio. La asistencia prenatal fue considerada adecuada para el 2,1% de la muestra. Más números de consultas prenatales fueron observados entre las mujeres con compañero y con mayor número de hijos. Los registros demostraron baja adecuación a la totalidad de los criterios mínimos establecidos y pocos factores parecen explicar ese escenario.*

**Descriptores:** Atención prenatal. Mujeres embarazadas. Salud de la mujer. Enfermería en salud comunitaria. Atención primaria de salud. Servicios de salud.

**Título:** Adecuación de cuidado prenatal en una estrategia de salud familiar de Porto Alegre-RS.

a Nurse – graduation from the Federal University of Rio Grande do Sul (UFRGS).

b Associate Professor – Public Health Undergraduate Program and Public Health Graduate Program, UFRGS. PhD in Epidemiology at UFRGS.

c Associate Professor - Nursing Undergraduate Program and Nursing Graduate Program at UFRGS. PhD in Epidemiology at UFRGS.

## INTRODUCTION

In the history of Public Health, maternal and child care have been considered a priority area, especially with regard to care for women during pregnancy<sup>(1)</sup>. In the 80's prenatal care was seen as a set of educational and clinical procedures with the goal of promoting health and identify early problems that could result in risk to the health of the mother and the fetus. In 2006<sup>(2)</sup>, in order to provide higher quality and humanization of this procedures, the Ministry of Health stated that the primary purpose of prenatal and postpartum is to receive women from the beginning of pregnancy, ensuring, at the end of pregnancy, the birth of a healthy child, with a guarantee of well-being for both mother and newborn.

The number of prenatal visits made during pregnancy is increasing year by year<sup>(3)</sup>. While in 2003, there were 8.6 million prenatal consultations, in 2009 there were 19.4 million prenatal consultations, representing an increase of 125%, mainly attributable to increased access to prenatal care. Still, access to a minimum number of prenatal consultations is far from reaching all pregnant women and maternal mortality rate remains high.

In 2007, the Maternal Mortality Ratio in Brazil (which considers information from the Information System on Mortality and Born Alive) was 77.0/100,000 born alive<sup>(4)</sup>. Complications of pregnancy, childbirth and puerperium are the tenth leading cause of death in women in Brazil, with appropriate prenatal and childbirth care, we could manage to avoid most of these deaths<sup>(5)</sup>. In Porto Alegre, considering the causes of death in the female population, maternal mortality is ranked eighth<sup>(6)</sup>. To the Municipal Health Secretariat of Porto Alegre<sup>(6)</sup>, women's health is a priority, hoping to establish public health policies whose actions directly impact on reducing rates of maternal and child morbidity and mortality.

The Ministry of Health, through the Program for Humanization of Prenatal and Childbirth Care (PHPC)<sup>(7)</sup>, validates the nurse as the qualified professional from the health team for the direct care of pregnant women in low risk prenatal care, endorsing the Law of Professional Nursing<sup>(8)</sup> - Decree No. 94.406/87 and established guidelines for proper prenatal care:

(a) early prenatal care in the first trimester; (b) target of at least 6 prenatal consultations; (c) distributed consultations during pregnancy, at least one in the first trimester, two in the second trimester and three in the third trimester; (d) complementary laboratory tests required: blood count, blood typing, Maternal Rh factor determination and testing of antibodies to human immunodeficiency virus (HIV) (during the first consultation), qualitative urine medical test (QUT), Venereal Disease Research Laboratory (VDRL) test, and fasting glucose (first consultation and after 30 weeks pregnancy); (e) educational activities during the prenatal care; (f) classification of risk pregnancy; (g) tetanus vaccination.

The recommendations on the number of consultations for a proper prenatal care, vary internationally. In the United States, the current recommendation is one consultation per month between the 4th and 28th week of gestation, two monthly consultations between the 28th and 36th week and weekly consultation from the 36th week until birth<sup>(9)</sup>.

Audit at local level, allows professionals to assess the coverage and determine the service given to women's health during pregnancy and childbirth. Thus, this study aims to establish the proportion of consultations of low risk prenatal care that meet the guidelines of the Ministry of Health as the minimum number of consultations and identify possible factors associated with adequacy to this recommendation in the Prenatal Family Health Strategy Program (PFHSP) from Jardim Cascata, Porto Alegre-RS. Furthermore, this study aims to describe the characteristics of women attending the program, determining the number of prenatal visits made to determine diagnostic tests during prenatal care, identifying the number of users referred for high-risk prenatal care and evaluate the number of puerperium consultations.

## METHODOLOGY

This is a historical cohort study, which included all users of the Unified Health System (SUS) who underwent prenatal care in the Family Health Strategy Program in Jardim Cascata, between April 2008 and May 2010. The FHSP Jardim Cascata is one of the 72 FHSP of Porto Alegre, where 4,455

people registered are served by two teams<sup>(10)</sup>. Data collection was performed retrospectively, by reviewing all records of monitoring perinatal FHSP.

Basing ourselves on the guidelines of PHPC<sup>(7)</sup>, for purposes of this study, the authors considered the prenatal care as “adequate” when the woman: (1) held 6 or more consultations; (2) adhered to prenatal care during the first trimester of pregnancy; (3) performed, at least once during pregnancy, routine laboratory tests: blood type and Rh factor determination (ABO-Rh) blood count (hemoglobin and hematocrit), QUT, VDRL and glucose fasting; and (4) held puerperal consultation. When one or more of these criteria were not met, prenatal care, as a whole, was considered as “not adequate” by the authors.

The distance between the Health Unit Jardim Cascata and the residence of each patient was estimated in meters, using the Google Maps software.

Data were described respecting the characteristics of the variables and their distribution. The women were divided into two groups: with and without adequate prenatal care. For continuous data, comparisons were performed adopting t test for independent samples or Mann-Whitney U test. For categorical variables, the test of homogeneity of proportions was based on statistical chi-square Pearson test or Fisher Exact test. In all analyzes the level of significance of 5% was considered.

For outcomes “6 or more consultations”, “adherence to prenatal care in the first trimester” and “the puerperal consultations” after a univariate analysis, multivariable logistic regression was performed. Data were analyzed using the statistical software Predictive Analytics Software Statistics 18.

The research project was approved by the Research Committee of the School of Nursing of the Federal University of Rio Grande do Sul (n 026/2010) and by the Ethics and Research Committee of the City of Porto Alegre (n 539).

## RESULTS

Between April 2008 and May 2010, 104 registrations were identified from records of pregnant women. Three configured as duplicate registration. Out of 101 women included, 6 changed their address, leaving the area covered by the FHSP Jardim Cascata, during the prenatal period, making

it impossible to obtain all of the data from these 6 women, therefore, they were excluded from the study, thus, the sample consisted of 95 women who completed the prenatal at the referred FHSP.

There were incomplete records of the following variables from the Prenatal Form: “history of abortions” (85.3%), “skin color” (53.7%), “occupation” (18.9%), “family support” (14.7%), “planned pregnancy” (14.7%), “marital status” (7.4%) and “number of children” (3.2%). All this information was completed during the preparation of the database.

The average age of women was  $27.8 \pm 5.1$  (minimum = 13, maximum = 37) years, predominantly between 21 and 29 years old (63.2%). About 50% of pregnant women were considered white as their skin color, with up to 2 children (90.6%) and in a stable union (90.5%). The number of prenatal consultations performed were  $5.4 \pm 3.4$ , and 53.7% of women had 6 or more consultations. Approximately 52% of women began prenatal care during their first trimester, 84.2% underwent tests, 19.1% had a considered high-risk pregnancy and only 2.1% fulfilled all the criteria based on the Program for Humanization of Prenatal and Childbirth Care of the Ministry of Health, having their prenatal considered “adequate”.

When the characteristics of women who had 6 or more consultations were compared to those who had up to 5 prenatal consultations, there was a higher proportion of laboratory tests for those who had 6 or more consultations. There were no other statistically significant differences identified in the comparison to other variables (Table 1).

Greater proportion of laboratory tests and risk pregnancy was identified in the group of women who adhered to prenatal care in the first trimester than those who adhered in the other trimesters (Table 2).

When comparing the characteristics of pregnant women who had and who did not have a puerperal consultation, an association between high-risk pregnancy and going to the consultation was identified (40% vs. 15.2%,  $p = 0.04$ ) (Table 3).

Multivariate logistic regression showed a correlation between the presence of a partner (OR 5.7, 95% CI: 1.1 to 30.7;  $p = 0.04$ ), adjusted for the number of children (OR: 1.5, 95% CI: 0.99 to 2.2;  $p = 0.06$ ) and who underwent 6 or more prenatal consultations.

**Table 1** - Univariate comparison between women who had 6 or more prenatal consultations and those who performed up to 5 prenatal consultations in the FHSP Jardim Cascata, Porto Alegre, Brazil, from April 2008 to May 2010.

Variable	> 6 consultations (n=51)	< 5 consultations (n=44)	p*
Age (in years)	24.4±5.1	23.0±5.1	0.20
Number of children	1 (0-2)	1 (0-1)	0.13†
Distance from Health Unit (meters)	340 (232-497)	337 (172-445)	0.59†
<b>Skin color</b>			
white	23 (45.1)	25 (56.8)	0.27
black	16 (31.4)	14 (31.8)	
brown	12 (23.5)	5 (11.4)	
<b>Occupation</b>			
works	30 (58.8)	25 (56.8)	0.07
studies	3 (5.9)	9 (20.5)	
doesn't work	18 (35.3)	10 (22.7)	
<b>Marital status</b>			
with a partner	49 (96.1)	37 (84.1)	0.08
<b>Planned Pregnancy</b>	8 (15.7)	11 (25.0)	0.256
<b>Family support</b>	47 (92.2)	40 (90.9)	1.00‡
<b>Previous abortion</b>	10 (20.4)	12 (31.6)	0.23
<b>Blood typing - Rh Factor</b>	49 (96.1)	33 (75.0)	<0.01
<b>VDRL</b>	49 (96.1)	31 (70.5)	<0.01
<b>Urine</b>	49 (96.1)	31 (70.5)	<0.01
<b>Glucose</b>	49 (96.1)	31 (70.5)	<0.01
<b>Hemogram</b>	49 (96.1)	32 (72.7)	<0.01
<b>Complete tests</b>	49 (96.1)	31 (70.5)	<0.01
<b>Anti-HIV</b>	49 (96.1)	31 (70.5)	<0.01
<b>Anti-tetanus vaccine</b>	31 (68.8)	20 (45.5)	0.14
<b>Cytopathologic</b>	40 (78.4)	27 (61.4)	0.07
<b>High-risk Pregnancy</b>	8 (16)	10 (22.7)	0.41

Data expressed in numbers: mean ± standard deviation, median (interquartile range) or absolute number (proportion) as characteristics of the variables.

\* Test of homogeneity of proportions based on the statistical Pearson chi-square test.

† Mann Whitney. ‡ Fisher's exact test.

## DISCUSSION

In the present study, we found a lack of records regarding data for the Prenatal Program in specific forms to this program, in the registration book of the Health Unit, as well as the medical records of the family. Because of that, only a few Prenatal procedures were considered adequate ac-

ording to the criteria of the Ministry of Health. Low adherence to prenatal care in the first trimester, the number of consultations was often equal to or less than 6 for prenatal care and incomplete laboratory testing contributed to this situation. Women in a stable union attended more prenatal consultations and the same tendency was observed in those women with more children.

**Table 2** - Univariate comparison between women who adhered to prenatal care in first trimester and other trimesters in the FHSP Jardim Cascata, Porto Alegre, Brazil, from April 2008 to May 2010.

Variable	Prenatal 1 <sup>st</sup> trimester (n=49)	Prenatal other trimesters (n=46)	p*
Age (in years)	23.9±5.1	23.6±5.3	0.85
Number of children	1 (0-1)	1 (0-2)	0.90†
Distance from Health Unit (meters)	340 (232-462)	322 (170-430.5)	0.42†
<b>Skin color</b>			
white	22 (44.9)	26 (56.5)	0.21
black	15 (30.6)	15 (32.6)	
brown	12 (24.5)	5 (10.9)	
<b>Occupation</b>			
works	31 (63.3)	24 (52.2)	0.53
studies	5 (10.2)	7 (15.2)	
doesn't work	13 (26.5)	15 (32.6)	
<b>Marital status</b>			
with a partner	46 (93.9)	40 (87)	0.31‡
<b>Planned pregnancy</b>	12 (24.5)	7 (15.2)	0.26
<b>Family support</b>	47 (95.9)	40 (87)	0.15‡
<b>Previous abortion</b>	10 (21.3)	12 (30)	0.35
<b>Blood grouping - Rh Factor</b>	46 (93.9)	36 (78.3)	0.03
<b>VDRL</b>	45 (91.8)	35 (76.1)	0.03
<b>Urine</b>	45 (91.8)	35 (76.1)	0.03
<b>Glucose</b>	45 (91.8)	35 (76.1)	0.03
<b>Hemogram</b>	45 (91.8)	36 (78.3)	0.06
<b>Complete tests</b>	45 (91.8)	35 (76.1)	0.03
<b>Anti-HIV</b>	45 (91.8)	35 (76.1)	0.03
<b>Anti-tetanus vaccine</b>	30 (61.2)	21 (45.7)	0.13
<b>Cytopathologic</b>	38 (77.6)	29 (63)	0.12
<b>High-risk Pregnancy</b>	15 (31.3)	3 (6.5)	0.002

Data expressed in numbers: mean ± standard deviation, median (interquartile range) or absolute number (proportion) as characteristics of the variables.

\* Test of homogeneity of proportions based on the statistical Pearson chi-square test.

† Mann Whitney. ‡ Fisher's exact test.

There is a significant proportion of underreporting found in Prenatal Program offered to that community. The importance of health records in clinical practice, influence the processes of care, making the audits to reflect the quality of care provided.

The clinical and demographic characteristics of pregnant women were similar to studies in

Caxias do Sul-RS<sup>(11)</sup> and Paraná<sup>(12)</sup>, showing that most of the pregnant women are young and in a stable union. However, the percentage of pregnant adolescents was lower in Jardim Cascata (10.5%) than in Caxias do Sul (26%) and Paraná (23%). In the present study, the average of consultations was 5.4, similar to a study conducted in Pelotas (5.3 consultations)<sup>(13)</sup>, but lower than studies in São

**Table 3** - Univariate comparison between women who underwent puerperal consultation and who did not undergo puerperal consultation in the FHSP Jardim Cascata, Porto Alegre, Brazil, from April 2008 to May 2010.

Variable	With Puerperal consultation (n=16)	Without Puerperal consultation (n=79)	p*
Age (in years)	24,6±4,0	23,6±5,3	0,49
Number of children	1 (0-2)	1 (0-2)	0,77†
Distance from Health Unit (meters)	355 (175,5-487,8)	340 (230-450)	0,79†
<b>Skin color</b>			
white	8 (50)	40 (50,6)	0,77
black	6 (37,5)	24 (30,4)	
brown	2 (12)	15 (19)	
<b>Occupation</b>			
works	12 (75)	43 (54,4)	0,31
studies	1 (6,3)	11 (13,9)	
doesn't work	3 (18,8)	25 (31,6)	
<b>Marital status</b>			
with a partner	15 (93,8)	71 (89,9)	1,00‡
<b>Planned Pregnancy</b>	4 (25)	15 (19)	0,73‡
<b>Family support</b>	16 (100)	71 (89,9)	0,34‡
<b>Previous abortion</b>	3 (18,8)	19 (26,8)	0,75‡
<b>Blood grouping - Rh Factor</b>	15 (93,8)	67 (84,8)	0,69‡
<b>VDRL</b>	15 (93,8)	65 (82,3)	0,45‡
<b>Urine</b>	15 (93,8)	65 (82,3)	0,45‡
<b>Glucose</b>	15 (93,8)	65 (82,3)	0,45‡
<b>Hemogram</b>	15 (93,8)	66 (83,5)	0,45‡
<b>Complete tests</b>	15 (93,8)	65 (82,3)	0,45‡
<b>Anti-HIV</b>	15 (93,8)	65 (82,3)	0,45‡
<b>Anti-tetanus vaccine</b>	9 (56,3)	42 (53,2)	0,82‡
<b>Cytopathologic</b>	12 (75)	55 (69,6)	0,77‡
<b>High-risk Pregnancy</b>	6 (40)	12 (15,2)	0,04‡

Data expressed in numbers: mean ± standard deviation, median (interquartile range) or absolute number (proportion) as characteristics of the variables.

\* Test of homogeneity of proportions based on the statistical Pearson chi-square test.

† Mann Whitney. ‡ Fisher's exact test.

**Table 4** - Multivariable analysis among women who had gone to six or more consultations and other variables of pregnant women registered in the FHSP Jardim Cascata, Porto Alegre, Brazil, from April 2008 to May 2010.

Variable	OR (95% CI)	p
With a partner	5.7 (1.1 – 30.7)	0.04
Number of children	1.5 (0.99 – 2.2)	0.06

Paulo (6.5 consultations)<sup>(14)</sup> and Caxias do Sul-RS (6.2 consultations)<sup>(11)</sup>.

Audit conducted in São Paulo with 653 medical records of pregnant women showed that 38.4% prenatal cares were adequate, considering the initiation of prenatal care and the number of consultations. However, when these criteria included the performance of routine laboratory tests described by the PHPC (VDRL, urine and fasting glucose tests, the study in question, considered the repetition of them in the thirtieth week of gestation), no pregnant women had her prenatal classified as adequate<sup>(14)</sup>.

In our study, considering the number of consultations, early prenatal care, laboratory tests (once during pregnancy) and puerperal consultation, it was found a percentage of 2.1% of adequate prenatal care. The results presented are similar to the study conducted in São Paulo. Another study, conducted in Juiz de Fora-MG<sup>(14)</sup>, corroborates these results. The authors found a coverage of 99% of prenatal care, with an average of 6.4 consultations. However, only 27.6% of prenatal care were considered adequate in relation to the start of monitoring in the first trimester and 6 or more consultations throughout pregnancy. When basic laboratory tests were included in the evaluation, only 1.9% remained classified as adequate<sup>(15)</sup>. This reality was also found by Silveira Dias and Santos<sup>(13)</sup> who identified 37% of adequate prenatal care. When the same authors added to their criteria laboratory tests and some procedures during consultations, they found that only 5% of prenatal care were adequate. This result may be considered a more favorable outcome, especially if we take into account the various criteria evaluated, however it is still not satisfactory, what was found in Caxias do Sul-RS<sup>(11)</sup>. The authors found that 35.2% of pregnant women had their prenatal care classified as adequate, adopting as a criterion for classifying the number of consultations, early prenatal care in the first trimester, distribution of prenatal consultations, routine tests, obstetric examination, educational activities, breastfeeding guidance, tetanus vaccination and cytopathology test, as PHPC recommends.

It is observed that, as criteria are aggregated the percentage of adequacy of prenatal care decrease, suggesting that the implementation of all

activities proposed by the PHPC still appears to be a challenge<sup>(16)</sup>. The PHPC<sup>(7)</sup> provides for certain actions that rely exclusively on FHSP team as identifying pregnant women early to initiate prenatal care in the first trimester, seek those who miss appointments to have 6 or more consultations, as well as those lacking the puerperal consultation, develop educational activities with pregnant women and thereby improve the quality of prenatal care. However, scheduling laboratory tests depends on external laboratories contracted to meet the Primary Care, if we had a Health System with network service, we could improve this aspect, since this criterion has decreased the percentage of adequacy of various studies cited.

Although the majority of the women (51.6%) have initiated prenatal care in the first trimester, its early beginning still remains a challenge for the FHSP. The earlier the initiation, the better the quality and adherence to prenatal care will be, reflected in a greater number of consultations<sup>(5)</sup>.

The evidence indicates that, in Brazil, the prenatal care of low risk, despite having good coverage, needs to be revised, since there is low compliance to the official program, especially related to the late first consultation and the failure of fulfilling the stipulated number of consultations and complementary tests<sup>(11,15)</sup>.

From the participant pregnant women, 19% were classified in the high-risk pregnancy group, where the high-risk pregnancy was associated with adherence to prenatal care in the first trimester. A study conducted in Recife, in 2007, found that only 38% of women began prenatal care in the first trimester, even though they had a high-risk pregnancy<sup>(17)</sup>.

In the present study, only 16.8% of women assessed underwent puerperal consultation and this procedure was performed more among women who had a pregnancy considered of high-risk. This result causes concern, given that the Ministry of Health<sup>(5)</sup> recommends that home visits are conducted in the first week after discharge of the infant and the first three days after discharge, if the baby is considered at risk. In the Family Health Strategy Program, this home visit service is characterized as the primary activity of the community health agent (CHA). The establishment of routine work, aligned with PHPN guidelines and functions of the CHA could contribute to the increase in both the

number of puerperal consultation, as the adequacy of other criteria of this guideline.

Among the characteristics evaluated, it was not possible to find factors that could be associated to the performance of an adequate prenatal care. However, the presence of a partner and number of children seem to influence women included in this study who carried out six or more prenatal consultations. Study with HIV-positive pregnant women found as factors of adherence to prenatal care, family support, speech valuing health care, desire for tubal ligation, welcoming of the health team and positive experiences of care<sup>(18)</sup>. On the other hand, a study conducted in Embu-SP, in 1996, outlines lower income (less than a minimum wage) and age below 20 years old (possibly without partner), as factors that contributed so that pregnant women would not adhere to prenatal care in the first trimester and would not perform six consultations<sup>(19)</sup>. These factors lead us to infer that in the FHSP, it is possible to seek, welcome and make these women have greater adherence to prenatal care.

## CONCLUSION

In the FHSP assessed, we identified missing data in the forms involved in prenatal care. Although some of the criteria had reasonable adequacy of prenatal care, in general, this adequacy was low, considering all of the minimum criteria set by PHPC. Multivariate analysis showed that few of the evaluated factors seem to explain this scenario.

## REFERENCES

- 1 Shimizu HE, Lima MG. As dimensões do cuidado pré-natal na consulta de enfermagem. *Rev Bras Enferm.* 2009;62(3):387-92.
- 2 Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Análise de Situação em Saúde. *Saúde Brasil 2006: uma análise da situação de saúde no Brasil.* Brasília (DF): Ministério da Saúde; 2006.
- 3 Ministério da Saúde (BR). Saúde da Família terá reforço de US\$ 166,9 milhões [Internet]. Brasília (DF): Ministério da Saúde; 2009 [citado 2012 Ago 22]. Disponível em: [http://portal.saude.gov.br/portal/aplicacoes/noticias/default.cfm?pg=dspDetalheNoticia&id\\_area=124&CO\\_NOTICIA=10524](http://portal.saude.gov.br/portal/aplicacoes/noticias/default.cfm?pg=dspDetalheNoticia&id_area=124&CO_NOTICIA=10524).
- 4 Ministério da Saúde (BR). DataSUS. Indicadores e Dados Básicos Brasil-2009: indicadores de mortalidade [Internet]. Brasília (DF): Ministério da Saúde; 2009 [citado 2012 Ago 20]. Disponível em <http://tabnet.datasus.gov.br/cgi/ibd2009/C03b.htm>.
- 5 Ministério da Saúde (BR), Secretaria de Atenção à Saúde, Departamento de Ações Programáticas Estratégicas, Área Técnica de Saúde da Mulher. *Pré-natal e Puerpério: atenção qualificada e humanizada - Manual técnico.* Brasília (DF): Ministério da Saúde; 2005.
- 6 Secretaria Municipal de Saúde (Porto Alegre). *Diretrizes da assistência ao pré-natal de baixo risco.* Porto Alegre: PMPA; 2006.
- 7 Ministério da Saúde (BR), Secretaria de Políticas de Saúde. *Programa de Humanização no Pré-natal e Nascimento (PHPN).* Brasília (DF): Ministério da Saúde; 2000.
- 8 Ministério da Saúde (BR). Decreto 94.406, de 08 de agosto de 1987: dispõe sobre o exercício da Enfermagem e dá outras providências. Brasília (DF): Ministério da Saúde; 1987 [citado 2012 Ago 10]. Disponível em: <http://www.portaleducacao.com.br/enfermagem/artigos/1735/decreto-n-94406-87-regulamentacao-da-lei-n-7498-86>.
- 9 Department of Health and Human Services (US), Office of Women's Health. *Prenatal care fact sheet* [Internet]. Washington: Department of Health and Human Services (US), Office of Women's Health; 2009 [cited 2013 Jun 01]. Available from: <http://womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.cfm#f>.
- 10 Porto Alegre. *Estratégia de Saúde da Família Jardim Cascata* [Internet]. Porto Alegre: PMPA; 2011 [citado 2012 Ago 12]. Disponível em: [http://www.portoalegre.rs.gov.br/sms/default.php?p\\_secao=852](http://www.portoalegre.rs.gov.br/sms/default.php?p_secao=852).
- 11 Trevisan MR, Lorenzi DRS, Araújo NM, Ésber K. Perfil da assistência pré-natal entre usuárias do sistema único de saúde em Caxias do Sul. *Rev Bras Ginecol Obstet.* 2002;24(5):293-9.
- 12 Ravelli APX. Consulta puerperal de enfermagem: uma realidade na cidade de Ponta Grossa, Paraná, Brasil. *Rev Gaúcha Enferm.* 2008;29(1):54-9.
- 13 Silveira DS, Dias JSC, Santos IS. Atenção pré-natal na rede básica: uma avaliação da estrutura e do processo. *Cad Saúde Pública.* 2001;17(1):131-9.



- 14 Koffman MD, Bonadio IC. Avaliação da atenção pré-natal em uma instituição filantrópica da cidade de São Paulo. Rev Bras Saude Mater Infant. 2005;5(Suppl. 1):s23-s32.
- 15 Coutinho T, Teixeira MTB, Dain S, Sayd JD, Coutinho LM. Adequação do processo de assistência pré-natal entre as usuárias do Sistema Único de Saúde em Juiz de Fora-MG. Rev Bras Ginecol Obstet. 2003;25(10):717-24.
- 16 Bezerra MP. Percepção da gestante sobre a Integralidade da Atenção Pré-Natal [dissertação]. Fortaleza (CE): Universidade de Fortaleza; 2008.
- 17 Carvalho VCP, Araujo TVB. Adequação da assistência pré-natal em gestantes atendidas em dois hospitais de referência para gravidez de alto risco do Sistema Único de Saúde, na cidade de Recife, Estado de Pernambuco. Rev Bras Saude Mater Infant. 2007;7(3):309-17.
- 18 Darmont MQR, Martins HS, Calvet GA, Deslandes SF, Menezes JA. Adesão ao pré-natal de mulheres HIV+ que não fizeram profilaxia da transmissão vertical: um estudo sócio-comportamental e de acesso ao sistema de saúde. Cad Saúde Pública. 2010;26(9):1788-96.
- 19 Puccini RF, Pedroso GC, Silva EM, Araújo NS, Silva NN. Equidade na atenção pré-natal e ao parto em área da Região Metropolitana de São Paulo, 1996. Cad Saúde Pública. 2003;19(1):35-45.

---

**Author's address / Endereço do autor /  
Dirección del autor**

Mariur Gomes Beghetto  
Escola de Enfermagem da Universidade Federal do  
Rio Grande do Sul  
Rua São Manoel, 963, Rio Branco  
90620-110, Porto Alegre, RS  
E-mail: mbeghetto@hcpa.ufrgs.br

Received: 26.09.2012  
Approved: 14.08.2013