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# PREVALENCE OF HIV POSTPARTUM ADOLESCENTS ASSISTED IN THE MATERNITY HOSPITAL CENTRAL HUAMBO, DEPENDING ON YOUR PARTNER ECONOMIC PROFILE

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#### **ABSTRACT**

**Introduction**: Infection with the human immunodeficiency virus (HIV) is a global concern of all governments, nongovernmental organizations and partners, it is more prevalent in people of reproductive age, the epidemiological behavior of the transmission of Human Immunodeficiency Virus varies gender, region, age, and being pregnant, shown by prevalence studies. Objective: To describe the prevalence of HIV infection among women teens assisted in the General Maternity Hospital of Huambo, according to their socioeconomic profile. Methodology: This was a descriptive cross-sectional study conducted from February to August 2010 on a convenience sample consisting of 381 adolescent mothers, interviewed postpartum Maternity in the Angola - Huambo Central Hospital . Data were obtained from primary form from standardized interviews and secondary extracted in consultation antenatal cards. Descriptive analyzes were performed to compare groups of postpartum women stratified into two categories (of 10-16 years and 17-19 years from socioeconomic variables. 381 women were interviewed, and 147 ( 38.6% ) aged between 14 and 16 years , and 234 ( 61.4 % ) between 17 and 19 years . Conclusion: The prevalence of HIV infection among women teens was 0.6 %

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#### INTRODUCTION

Angola , officially the Republic of Angola , is an African country that is situated on the western coast , has land area of 1,246,700 km  $^2$  , whose mainland is bordered to the north and northeast by the Democratic Republic of Congo , Zambia to the east by the southern Namibia and west by the Atlantic Ocean. Also includes the enclave of Cabinda , through which borders the Republic of the Congo to the north . In addition to the aforementioned neighbors , Angola is the closest of the British colony of St. Helena.  $^1$ 

Results Definitive Census of population in 2014 show that on May 16, 2014, the resident population in Angola was 25,789,024 inhabitants, of which 12,499,041 were male (48% of the total resident population) and 13,289,983 of female (52% of total resident population).<sup>2</sup>

Pregnancy is a state where health care is redoubled, is a stage in a woman's life where most of them are going consultations

Among the many objectives of prenatal consultations is to make diagnoses and treatment of diseases including hidden . All events which can have a negative influence on the outcome of pregnancy as is the case with HIV infection should receive specific attention from health professionals .<sup>3</sup>

It is the recommendation of the Ministry of Health of Angola who do the texte of HIV during antenatal consultations with the permission of the user , you are explained the importance of doing texte ( Mother and son ) , forms of contagion , chances of transmission to son , treatments available , especially with respect to prevention of vertical transmission ,  $^{4,5,6}$ 

Relating HIV status by HIV , we must remember that the presence of sexually transmitted diseases ( STDs) facilitate HIV transmission , passing the message that they are concerned fidelity / risky behavior , unprotected sex . These situations ( STD , bacterial

vaginosis, genital ulcers) are described as enhancers of transmission of infection by the virus HIV.<sup>7,8</sup>

Epidemiological trends of human immunodeficiency virus ( HIV), have been demonstrate changes in recent times, situations associated with regional profiles and, as a consequence, growth of infection among women of reproductive age, with the increased likelihood of vertical transmission,  $^9$ 

HIV transmission can be done via blood , unprotected sexual intercourse , or vertical transmission ( mother / fetus) .  $^{10.11}$ 

According to the UNAIDS Joint Nations Programme on HIV / AIDS transmission rates in women worldwide were in the year 1996 by 70 % to heterosexual transmission. 3 % - 5 % for hemostransfusão Hemo or use of derivatives, and 5 % - 10 % for intravenous drug users , 90 % were in children related to child transmission ,  $^{\rm 12}$ 

Given the severity of the infection and its complications becomes necessary to know our reality and equip ourselves with knowledge so we can intervene and create public health policies in order to orient the population , do diagnostics and early treatment , we institute transmission prevention.

In Angola the prevalence of HIV among adults in 2007 was 2.1 % in the adult population , 3.1 in pregnant women overall, 2.7% in pregnant women from 15 to 24 years old ( HIV epidemic in Portuguese -speaking countries ) , whereas in 2009 the average sero prevalence was 1.9 % in the general population and 2.7 % in pregnant women from 15 to 24 years idade.  $^{13}$ 

According to the National Institute for the Fight against AIDS ( INLS ) in 2012 , the prevalence of HIV in Pregnant Women in Huambo Province was 12 % , despite the efforts deployed by the Government of Angola , the HIV prevalence in pregnant women to increase this , a situation that displeases the Ministry of Health of Angola and seem to be related to better diagnostic and therapeutic coverage .  $^{14}$ 

However , despite the prevalence of this increase seems to be linked to better healthcare coverage , which facilitates reporting of cases seen by the fact that the estimated number of HIV infections fell from 3.2 millions of new cases in 2007 to 2.7 million in 2010 and the number of AIDS deaths of 2.2 million in 2007 to 1.8 million in 201 , with this decrease case , cemented hope and motivation of the work of UNAIDS , establishing the three zeros strategy 1 - Zero new HIV infections , 2 - Zero discrimination , 3 - Zero deaths SIDA.  $^{14}$ 

The coverage of prenatal visits is 69 %, twenty percent of PTV and 49 % institutional deliveries, 17% of women make family planning consultations. 14.

The program of prevention of vertical transmission had its beginning in 2004 , is a priority program for the Government of Angola , this implemented in 18 provinces , allowing greater access and the best pregnant women , Diagnosis , treatment and follow-up . Esteemed than 1,360.000 living with HIV and in need of antiretroviral treatment in sub-Saharan Africa , while in Angola fence, 28,000 pregnant women living with HIV and in need of antiretroviral treatment and the coverage is only 20  $\%^{14,15}$ 

The number of pregnant women tested in the country has increased 98 539 in 2007 to 203 463 in

2009, from which the test result is positive , more than half do Anti Retroviral ( ARV )  $^{14}\,$ 

OBJECTIVE

Determine prevalence of HIV infection and socioeconomic profile in postpartum adolescents assisted in maternity , General  $2010\,$ 

MATERIAL AND METHOD

This is a study of cross , with purpose to determine the prevalence of HIV positivity among adolescent mothers assisted in maternity , 2010 Central Hospital of Huambo

Were invited for this study assisted in the postpartum maternity Huambo ( HCH ) Central Hospital during research . After clarifying the purpose of the study, participants signed an informed consent . Were subsequently subjected to respond to a questionnaire with socioeconomic data , and asked the cards prenatal visits for obtaining secondary data then submitted to HIV , Determine testing and confirmed that positivaram with Unigold , following the criteria of the Ministry of Angola health ( MINSA ) , to conduct the test and be labeled as a pregnant woman with HIV positive. The reading of the results was made even in the room

Inclusion criteria: all teenage mothers who gave birth in the maternity Huambo Central Hospital during the research time.

All women who agreed to answer the questionnaire and / or who have not accepted realize texte HIV were excluded from the study

The total of 405 postpartum women was interviewed , and 24 questionnaires had no requirements to be part of the work , after being considered a loss .

The World Health Organization ( WHO ) defines adolescents , all those people who have aged out of 10 (ten ) to 19 ( nineteen ) , stratifies in early teens of ten (10 ) to fourteen (14 ) years and late adolescents from 15 (fifteen ) to 19 ( nineteen ) years.  $^{16,17}$ .

Because a small number of terms in the first group, but operationally, it was decided to stratify in 1st group of 10 (ten ) to 16 (sixteen ) years old and the 2nd group of 17 (seventeen) to 19 (nineteen)

#### ANÁLISE METOD

Data collection was performed by a team of six health professionals , a biologist , a psychologist , two experts orthoses and prostheses , two midwives , all provided and properly trained

All questionnaires before being typed , underwent a process of revision and codification . Then selected and sorted then subjected to statistical analysis , which consisted of two steps:

Step 1: descriptive analysis.

In this step , we conducted a descriptive analysis of the study population , grouped into dimensions previously described . Data were tabulated and analyzed , allowing to obtain prevalence estimates of parameters such as media , proportions and dispersion ( standard deviation or variance) of the different variables that were crystallized through display tables

Step 2: Bivariate Analysis

At this stage of the study bivariate analyzes were conducted using 2 X 2 table , using the X2 test to test hypothesis of homogeneity of proportions , at a significance level of 5 %, a group of teenagers assisted postnatal mothers in the maternity ward of the central hospital Huambo , from socio- demographic and

psychosocial variables that were described according to maternal age (categorized into age range 12-16 years of age and from 17 to 19 years old) , marital status ( referring to only cohabitation , not being taken into account the interaction ) , and disorders of obstetric nature ( clinical and obstetric conditions ) , considering as significant when p greater than or equal to  $0.05\,$ 

Blood collection was performed by puncture of a peripheral vein in the cubital fossa ante right by trained nurses .

Were used to process the data and analyze the results, software from Microsoft Corporation Excel and Epi -Info 8.0 of the Centers for Disease Control and Prevention (2000), version 6.04b.

#### **RESULTS**

The total of postpartum women interviewed in this study was 405, with 24 questionnaires had no requirements to be part of the work, after being considered a loss.

The data of the present investigation correspond to interviews of 381 adolescent mothers , assisted in the maternity ward of the Angola - Huambo Central Hospital during the period February 2010 to August 5040 the total number of births in that period , it was established that the prevalence of pregnancy teenage motherhood in the Provincial Hospital of Huambo , Angola was  $38.79\ \%$  (1955 ) and 61.20% ( 3084 ) corresponding to postpartum women aged over 20 years , 840 births per month , 28 deliveries per day

Table 1 - Distribution of the sample data according to demographic and socioeconomic data of maternal social, cultural and demographic nature. Maternity General Hospital of Huambo, Angola

General Hospital of Huambo , Angola					
Socio- demographic	Absolute	relative	IC		
variables	(n)	(%)	95%		
Age					
< 17 anos	147	38,6	33,7 - 43,7		
17 a 19 anos	234	61,4	56,3 - 66,3		
Household situation					
urbanárea	101	26,5	22,2- 31,3		
suburbanárea	280	73,5	68,8 - 77,9		
Raça					
White	8	2,1	1,0 - 4,3		
Black	373	97,9	95,7 - 99,0		
consensual union					
Single	194	50,9	45,8 - 56,0		
Maride	187	49,1	44,0 - 54,2		
Status escolar					
(etude					
atualmente)					
Yies	262	68,8	63,8 - 73,3		
Not	119	31,2	26,7 - 36,2		
Reads and writes					
Yies	293	76,9	72,3 - 81,0		
Not	88	23,1	19,0 - 27,7		
Paid Work					
Yies	145	38,1	33,2 - 43,2		
Not	236	61,9	56,8 - 66,8		

Mirrored data in Table 1 shows the profile of puerperal adolescents interviewed . It is observed that pregnancy was more frequent in the age group of late teens ( 16 and 19 ) totaling 61.4 %, and 73.5 % were from the suburban area . As for race , the most prevalent was black , with 97.9 % . Proportionally there was almost equal distribution regarding consensual union , with a slight predominance of single ( 50.9 % ) , whereas married women constituted ( 49.1 % ) . The data also

show that a considerable portion of adolescentes 68.8% reported reading and writing and studying at the time who gave birth . More that 38% of postpartum women had paid

Table 2 - Distribution of the sample related to the morbidity of postpartum adolescents. Maternity of the Angola - Huambo Central Hospital

Morbidity	Absolute (n)	Relative (%)	IC 95%
Malária	108	30,8	26,6 -35,9
Anemia	62	17,7	13,9 - 22,2
Urinary Tract Infection	58	16,5	12,9 - 20,9
Hypertensive disorders	20	5,7	3,6 - 8,8
Hemorrhage	8	2,3	1,1 - 4,6
Heart disease	2	0,6	0,1 - 2,3
HIV	2	0,6	0.1 - 2.3

Referred to as morbid , it was observed that adolescents assisted in Maternity Huabo - Angola showed high rate of morbidity during pregnancy ( 36.5~% ) being the most frequent malaria , anemia and urinary infection, Infection by HIV was 0.6~% .

#### **DISCUSSION**

In recent decades there has been much discussion about teenage pregnancy , especially experienced negative effects in this age group , in this chapter , we will highlight the socio demographic , psychosocial and obstetric -gynecological , having as a backdrop the band of teenage pregnancy and HIV prevalence .; comparing the results with the literature , the search for a profile of teenage pregnancy and HIV prevalence in assisted at the Maternity Hospital of Huambo Central Africa postpartum .

The prevalence of adolescent births in the Hospital of Huambo observed during the study was 38.79 %, higher than those found in other continents, especially in the developed countries, whose rates are around 1-5 %, despite some variations: the Netherlands (0.9 %); Israel (2.3%); USA (12.8%); Russia (13.0%), 18.19. On the other side is less than found in some country in Africa, such as Mozambique, Zimbabwe, Malawi, South Africa and Swaziland to achieve rates of around 65 % of birth <sup>20</sup>. The proportion of postpartum adolescents aged 10-16 years ( early adolescence ) , who gave birth in the maternity of the Angola - Huambo Central Hospital was  $38.6\ \%$  , Despite the magnitude , is also lower than that found in some African countries; as Mozambique, Zimbabwe , Malawi , South Africa and Swaziland, 20 . Without making a value judgment here, but the difference in frequency of teenage pregnancy among africados people can be related to one socio -cultural bias. According Altuna, (2006) although much of the African peoples is of Bantu origin, which retain the traditional and cultural aspects, the Angolans are considered comparatively more moderate people who live in northeastern Africa , whose population has a higher rate of teenage pregnancy. Other factors also seem to interfere with the high rates of teenage pregnancy; as polygamy, early marriages dictated by the onset of menarche, arranged marriages in aspects of family.21 Study by Sabroza et al ( 2004a ), assessing part of a database consisting of 1,228 postpartum teens whose

database consisting of 1,228 postpartum teens whose deliveries occurred in the municipality of Rio de Janeiro , in the period 1999-2001 , showed that less than one-third had less than 17 years old. On the other hand , Paraguassú et al , (2005) , from the analysis of 438 pregnant adolescents in Santa Fair - Bahia noted that almost half of them were teen.

I imagine that the fluctuations in teenage pregnancy, early or late, vary by region, due to the migration of young people, especially the poor, in search of places with better living conditions,  $\cdot^{22,23}$ 

The survey revealed that most postpartum women interviewed adolescents living in suburban area , suggesting that the event may be related to the degree of urbanization of a city , the Human Development Index , socioeconomic conditions . Indeed , these areas tend to be marriages made earlier form , depending on the prevalence of traditional and cultural habits and custos,  $^{24,21}$ 

Also with respect to the subject , draws attention to a study based on literature review , developed at the Federal University of São Paulo ( UNIFESP / EPM ) and authored by Vitalle & Amancio , (2007 ) . According to the authors , in rural areas where it has disadvantaged people , the prevalence of teenage pregnancy is higher than in urban areas . Similar results were observed by Chalen et al (2007 ) studied adolescent pregnancy : a population the outskirts of São Paulo , Brazil.  $^{\rm 25,26}$ 

In general , our results revealed that adolescent mothers in the sample revealed learn reading and writing , not have consensual union , not having paid work . These characteristics are acceptable , taking into account the age criterion . However does not justify the occurrence of the phenomenon ( teenage pregnancy ) . This betrays the fact that the teenage pregnancy problem in the region is going through issues of social and cultural nature, translated by low income deficit urbanization , lack of information , religious conservatism , lack of access to health services , lack of health programs aimed at adolescents . In this sense , Altuna (2006 ) , draws attention to early marriages are recorded , mostly in these areas , where the conservatism of traditional cultural aspects prevails.  $^{21}$ 

Data not shown, prenatal care guides: prenatal care, psychological assistance to pregnant women prepare for motherhood (instructions on childbirth, childcare, breastfeeding, nutrition, postpartum, family planning), education regarding the use of medicines and measures become ominous for the fetus, treat disorders in pregnancy, prenatal care makes up prevention, diagnosis and treatment of diseases of pregnancy or intercurrent it, being a good and important thing to take by pregnant women 27 Studies have shown a good association between prenatal care and a better result in pregnancy, birth and fetal, 27,28,29.

In our sample, more than half joined the prenatal visits, a fifth fled, abandoning this probably related to distance between residence and office, unwillingness and morbidity during pregnancy (data not shown)

Half made the first appointment in the second quarter , almost all queries made less than 6 , which indicates that most of the population gives due importance follow-up visits not even doing the minimum consultation required by WHO , that due to replacement peripheral cord of the health network in the country ( Angola ) in the study had available a close, the average citizen travels 15 kms to find the nearest drive home, do the minimum number of queries required by WHO probably is due to the fact a good portion of them have changed the lifestyle due to pregnancy , probably because of the area of residence ( suburban area ) , most of them were farmers and vendors of market informal ( data not shown ) , which was that many forgot to go queries or sell preferred for self-

sufficiency , all this demand to meet the needs that have arisen and or increased with pregnancy , similar to results found by Range (2002 ) , in the municipality of Rio de Janeiro to study experience of teenage pregnancy , associated factors and perinatal outcomes among low-income postpartum women , where it was found that adolescents who make appointments , do the few times.  $^{30,31,32}$ 

Obed et al (1997 ) conducted research seeking clarification on antenatal complications in adolescents . Observed higher incidence of urinary tract infection , malaria , blood poisoning in adolescents analyzed , and admittedly significant numbers in patients of low socioeconomic class.  $^{\rm 33}$ 

The guidelines of the Ministry of Health of Angola , recommend performing Test Anti HIV with counseling and consent for all pregnant women at the first prenatal consultation , the similarity of other countries , Brazil , Mozambique , South Africa  $^{34,14}$ .

Serologic screening for HIV , is directly proportional to the frequency of pregnant women prenatal consultations that turn this interconnected awareness of mothers about the importance of queries and the precocity of the same  $^{35}$ 

HIV prevalence was 0.6 % , being low compared to studies developed by Strand et al in (2007 ) studied Unexpectede low prevalence of HIV among fertile women in Luanda , Angola . Does war Prevent the spread of HIV ?, which found a prevalence of 1.7 % , other developed by Menezes et al to conduct retrospective study from 2004 to 2010 , while studying prevalence of HIV in Women met in Public Hospitals in Northern Brazil , with prevailed 1.87 %  $^{34,35}$ 

HIV infections through perinatal transmission have declined by more than 90% since the early 1990s, while the number of HIV-infected women giving birth has increased. Today, if a woman takes HIV medicines exactly as prescribed throughout pregnancy, labor, and delivery, and provides HIV medicines to her baby for 4-6 weeks, the risk of transmitting HIV can be 1% or less. In some cases, a Cesarean delivery can also prevent HIV transmission. After delivery, a mother can prevent transmitting HIV to her baby by not breastfeeding and not pre-chewing her baby's food.<sup>35</sup>

In 2009 , HIV prevalence among pregnant women by province already showed signs of increase compared to previous years (2007 - 1.7% ) in 2009 , Huambo , 4.2% , 4.4% Benguela and Cunene , Luanda 3.9%  $^{14}\!\!.$ 

In Angola the largest number of infected with HIV are in the provinces of Luanda (35 %), Benguela (21 %), Huambo ( 12 % ) , Bie ( 8 % ) , Huila ( 7 % ) and Lunda Norte ( 5 % ) . ( INLS 2012) . This rise in prevalence numbers is linked to the fact that before had few health units, the testing program voluntarily and PTV covered few localities, the war factor hindered research, etc., which led to underreporting, it seems that cases are increasing, which is not commensurate with the fact that patients with HIV live longer, new cases are declining and deaths from AIDS to download, also explained by the fact that the country in 2004 had 3 services Prevention Program vertical transmission and in 2011 (304), currently the PTV coverage is 67.8 % of all municipalities in the country<sup>14</sup>. Unfortunately, there goes a considerable rate of undiagnosed women during prenatal consultations

, because they have made or by various reasons such as : quality of consultations , professional quality , lack of consultations , no test order , inventory roptura , unknowns of the result , refusing to perform the test on the part of the pregnant woman.  $^{36,37}$ 

### **CONCLUSION**

Despite the changes observed in the epidemiological behavior of HIV / AIDS, prevalence in this population is low compared with other regions.

#### **BIBLIOGRAPHICAL REFERENCES**

- Henriques, Isabel Castro. Paths of modernity in Angola
  Trade Dynamics and social transformations in the nineteenth century. Lisbon: Institute of Tropical Scientific Research, 1997
- National Institute of Statistics of Angola, resultados definitivos Recenseamento geral da população, E habitação - 2014, Março 2016, avaliable in www.aiangola.com/.../Publicação-Resultados-Definitivos-Censo-Geral-2014 Versão-2203201 acessed in 18, July 2016
- 3. Montenegro and Rezende Filho, 2010, Rao Obstetrics, 11th Reprint, Guanabara, pp 708-715
- 4. Amaral, E. et al. HIV infection in obstetrics: a review and reflection on the various sides of an issue. Ladies, Rio de Janeiro, v 19, n 2, p.104 114, 1991)
- 5. Mofenson , H.M. et al. Risk factors for perinatal transmission of Human Immunodeficiency Virus Type 1 in Women Treatede with Zidovudine . N. Engl. J.Med . , Boston , v 341 , n 2 , p . 385 93July 1999)
- MINSA, Angola, Ministry of Health of Angola, National Office of Public Health, Policies and Standards for the provision of services in Sexual and Reproductive Health, 2004, 2nd Edition, EAL Lda
- Centers for Disease Control and preventionpreventionUpdated diagnostic, treatment, and screening recommendations for STDs (June 4, 2015) available in, <a href="https://www.cdc.gov/std/bv/stdfact-bacterial-vaginosis.htm">www.cdc.gov/std/bv/stdfact-bacterial-vaginosis.htm</a>, acessede 18 July 2016
- 8. Royce, A.R. et al. Sexual transmission of HIV. N. Engl. J.Med., Boston, v.366, n. 15,p. 1072-78, 1997)
- 9. Araújo LM , LT Nogueira . Vertical transmission of HIV : situation found in a maternity Teresina . See Bras Enferm Brasília.2007 , 60 (4):396-399)
- 10.Landesman, S.H. et al. Obstetrical factors and the trasmission of immudefiency vyrus type 1 from mother to child. N. Engl. J.Med., Boston, v334, n25,p.1617-23, June 1996;
- 11 . Spach , D .; Keen , P. Virus and human imunodifiencia syndrome imunodifienecia acquired . In Morsee , S.A .; Moreland , A, A .; Holmes K.K. . Atlas of Sexually Transmitted Diseases . 2 Ed Ed Rio de Janeiro : . . Medical Arts , 1997 P. 165-205 )
- 12 . W.H.O 1996, World Health Organization Unaids. The HIV/AIDS situation in mid 1996. Disponivel in internet. 04 out. 1999)
- 13. INLS . 2006/2007 , National Institute for the Fight Against AIDS, Current Situation and Future Prespective Towards Universal Access to Prevention , Treatment and Care
- 14 . I.N.L.S. National Institute for the Fight Against AIDS / Angola , National Plan for Elimination of HIV Transmission from Mother to Child , Luanda , July 2012

- 15 . Embassy of Angola in the UK , Current Situation of Epidemic HIV / AIDS in Angola , www.angola.org.uk/PDF/press/vih\_sida\_em\_Angola.pdf , 2012, acessed, 02/12/2013
- 16.W.O.S., World Organizacion de la Salud, La salude delos young teens y en las Americas commitment un con el futuro. Whashinton, D.C. .: OPS; 1985.
- 17. Conti , M. A .; Fruitful , M.F.P .; Gambardella , A.M.D. Overweight and Body Dissatisfaction in Adolescents . Journal of Nutrition , Campinas , v 18 , n 4 , p.491 497, Jul / Aug . 2005
- 18. Goldenberg , P .; Figueiredo , M. C. T .; Silva , RS . Teenage Pregnancy , Prenatal and perinatal outcomes in Montes Claros , Minas Gerais , Brazil . Cad . Public Health , Rio de Janeiro , v . 21 , n . 4, 2005
- 19.Chen,X.K.; Wen, S.W.; Fleming, N; Demissie, K.; Rhoads, G.G; Walker,M. Teenage preganancy and adverse birth outcomes: a large population based retrospective cohort study. Int J Epidemiol. 2007; 36(2):368-73.
- 20.Ento 1, Sexuality and Gender in Adolescence, intergenerational sex . 2005 extracted via net day November 1, 2009, Segna adolescence pathfinder.org.mz
- 21. Altuna , R.R.A. Traditional Bantu culture . 2nd ed . , Luanda , Pauline , p . 301-324 , 2006
- 22.Sabroza , A. R .; Leal , M. C .; Souza JR . , P. R .; Range , SGN Some negative emotional consequences of early pregnancy in adolescents in Rio de Janeiro (1999-2001) . Cad . Public Health , Rio de Janeiro , 2004
- 23.PARAGUASSU , ALCB et al. Socio demographic and reproductive health pre and post -pregnancy teenagers , Feira de Santana , Bahia , Brazil . Hist . Collective health , Rio de Janeiro , v . 10 , n . 2, 2005
- 24.Necchi , I. El embarazo en la adolescence as a social problem: strategies y of prevención programs . Med Soc 1998..; 21 ( 2 ) : 75-81
- 25. Vitalle , Maria Sylvia de Souza & Amancio , Olga Maria Silverio , Teenage Pregnancy , 2004 , available ; www.pjpp.sp.gov.br/2004/artigos/11.pdf extracted via the website on 10/02/2011
- 26.Chalem And Mitsuhiro SS, Ferri CP, Barros MCM, Ginsburg R, Orange R. Pregnancy dolescência: sociodemographic and behavioral profile of a population on the outskirts of São Paulo, Brazil. Cad Saude Publica 2007 Jan; 23 (1):177-78.
- 27. Montenegro, CAB and Son, JR, Fundamental Obstetrics, 2008, 11th edition, Guanabara, pg, 130-139
- 28.The Newborn at Risk:Birth-Related Stressors, lon23944\_ch31.qxd 2/16/06 1:33 PM Page 813, avaliable in: <a href="https://www.prenhall.com/divisions/ect/app/.../london\_final\_ch31.pdf">www.prenhall.com/divisions/ect/app/.../london\_final\_ch31.pdf</a> acessed in 18 July 2016,
- 29. Abreu , CW de Paula , obstetric aspects , sociodemographic and psychosocial Teenage pregnancy by assisted health care system in the municipality of Muriaé - mining area kills , Brazil , Dissertation , 2010
- 30.Days , FLA .; Silva , KL . , Vieira , NFC . Pine PNC .; Maia , DC . Risks and vulnerabilities related to sexuality a teenager . Rev. nurse .UERJ , Rio de Janeiro , 18 ( 3 ) : 456-61 , July / September 2010
- 31.Advisory Council on huambo MINSA , 2009 , department of statistics of motherhood n'gangula august , Luanda Angola , 2009
- 32.Gama, S.G.N .; Szwarcwald, C .; Leal, MC Experience of Pregnancy in adolescence, associated factors and

- perinatal outcomes among low-income postpartum women. Cad. Public Health, Rio de Janeiro, v. 18, n. 1, 2002
- 33.0bed, J. Y.; Zarma, A. & Mamman, L. Antenatal complications in adolescent mothers aged below 14 years. Afr J Med Med Sci, 1997, v. 26, n. 3-4, p. 179-182.
- 34.Strand et al em (2007), Strand RT1, Fernandes Dias L, Bergström S, Andersson S., Unexpected low prevalence of HIV among fertile women in Luanda, Angola. Does war prevent the spread of HIV?, Int J STD AIDS. 2007 Jul;18(7):467-71
- 35.Centers for Disease Control and prevention prevention, HIV Among Pregnant Women, Infants, and Children, Março 2016, available in: <a href="https://www.cdc.gov/hiv/group/gender/pregnantwomen/">www.cdc.gov/hiv/group/gender/pregnantwomen/</a> accessed 18 July 2016
- 36.Brazil, Ministry of Health. National Health Surveillance Agency. National STD and AIDS. Epidemiological Bulletin Aids and STDs, Brasilia. 2009, 6 (1)
- 37. Souza Junior PRB, Szwacward CL, Barbosa Junior A, Carvalho MF, Castilho EA. HIV infection during pregnancy: Study Sentinel parturient Re 2002 Brazil Rio de Janeiro Public Health, 2004, 38 (6): 764-72.