

Evaluation of Infant Births Situation in Years

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Abstract

The Birth of baby defined as a physiological process during which the fetus, membranes, the umbilical cord and placenta are out of uterine cavity. **Objective:** The aim of the study is to assess the situation of births over a period of 6 years (2009 -2014) in the maternity hospital "Queen Geraldine" and what busy ratio of the maternity infant births with infant births nationally. To evaluate the situation of births in the country. **Methods:** Our study is retrospective in assessing changing the number of births in years. Statistical analysis using Excel 2007 software and IBM SPSS 20. In all cases, were considered as statistically significant values of $p < 0.05$ **Results:** In our study we found that the highest value of natural birth was 2013 with 14.84% of total deliveries to the 6- year-old. It showed that births with Sexio Caesarea are in high % in 2013 with 38% of total births. Leads nationally in 2013 with 21.04 % of births. That it has recorded an increase in the number of births in recent years but observed a growing trend in the number of births with S / C. The Birth of baby appears as an urban phenomenon in recent years not only in our institution but also nationally. **Conclusions:** The prevalence of infant births is increasing, and most of them occur in this institution. The incidence of natural births represents 4.98% of births nationally, but we have a very high number of births with S / C which occupied 2.77% of births which, policy necessitates preventive interventional birth. Policymakers and nongovernmental organizations should work with their policies on information regarding the promotion of the benefits of natural birth aimed at reducing the number of births with S / C

KEYWORDS: Birth of baby, natural birth, S / C, mother age, gestational ages, management phases of birth.

The birth is a physiological process in which the fetus, membranes, umbilical cord and placenta are out uterine cavity. Activity will be called normal birth when a woman is at term (approximately 40 weeks), when there are no complications, when the fetus is presented with vertex and ends of labor within 24 hours. To judge for a birth and have a normal activity should be subject to certain women the following steps:

Anamnesis

Birth initial assessment should include a review of the patient's prenatal care, including confirmation of the estimated date of birth. We shall see great importance:

- frequency and time of onset of contractions
- status of amniotic membranes (if there was spontaneous rupture of membranes, and if so, if it is clear amniotic fluid or meconium)

- fetal movements
- the presence or absence of vaginal bleeding.
- the contractions of Braxton Hicks should be distinguished from the truth. Typical features of Braxton Hicks contractions are as follows: a) usually it occurs no more often than once or twice for hour, or just a few times a day. b) they are irregular and do not grow in frequency and intensity.
- contractions leading to birth should have the following characteristics: a) the contractions can start every 10-15 minutes, but usually accelerate over time, increasing every 2-3 minutes. b) they tend to last longer and are stronger than Braxton Hicks contractions. c) the change of cervical.

Physical examination should include:

- evaluation of vital parameters
- fetal presentation
- evaluation of fetal
- the frequency, duration and intensity of uterine contractions
- abdominal examination with maneuvers Leopold
- pelvic examination with sterile gloves

Imaging examination allows the doctor to determine the following aspects of the cervix;

- the rate of opening of cervix, which ranges from 0 cm to 10 cm (complete dilation)
- the evaluation of cervical length, which can be reported as a percentage of the uterus normal from 3 to 4-cm long
- position anterior (front) or posterior (back)
- consistency (mild or strong)
- touch of the presenting part of the fetus allows a doctor to judge his position, judging the distance of the body (-5 to +5 cm) is determined to the ischial spines, the mother where 0 station is in accordance with the level of plug ischial mother.

Periods of the birth

The labor is defined by 3 periods which are divided into separate sub stages. Period of dilation, period of exit fetal, period of placental.

The first period of birth. Starting with regular uterine contractions and at the ends with the full opening of the cervix to 10 cm. This stage is divided into a latent phase, an active phase and the transition phase.

Latent phase begins, irregular uterine contractions or patient wife and progress to the shortening of the cervix. Rhythmic contractions become progressively more and more intense. This phase runs 8.6 h but should not exceed 20 h to nulipara (the woman who gives birth for the first time) are each 10-20 minute contractions lasting 15-20 seconds.

Active phase usually starts about 3-4 cm cervical opening and characterized by rapid dilation of the cervix and fetal head progress. Nuliparat cervical dilation is 1.2 cm to 1.5 cm hours and hours for each frequency multipart have lasting 2-3 min and 60 sec with intensity.

Phase transition at this stage progresses 8-10 cm dilation and fetal descent speed is 1 cm per hour for women who do not have birth can not last more than 3 hours, and 2 cm hours for women who were born before and should not take more than 1 h. At this stage what frequency contractions are 2-3 min and last 60 sec.

The second period of birth. This period begins with the full opening of the cervix (10 cm) and ends with the emergence of the fetus. In women who were not born earlier, the second phase should be considered normal up to 2 h and extended if it exceeds 3 h. In women multipart, the second phase should be considered on average lasted 15 min and if you spend 1 h. In this period of strong contractions have intensity and frequency of 1.5-2 min each lasting 60 to 90 sec and fetal head descent continues until it reaches the pelvic floor. This period of increased intensity often unaffordable by women.

Steps following the descent of the fetus in the pelvic cavity called cardinal fetal movements.

- the descent of the fetus which is: a) the pressure from amniotic fluid b) pressure of uterine fundus on the podium, c) abdominal muscle contractions, d) the extent and direction of the fetal body.
- bowing fetal head where intended replacement oksipitofrontal 10.5 cm diameter -11 cm with 9.5 cm diameter suboksipito-bergmatik.
- internal rotation here head rotates to match the pelvic cavity.
- extension fetal head, here oksiput comes out the pelvic canal followed by the forehead, face and beard.
- fetal scalp relief from vaginal introitus, left or right in relation to the back and shoulders of the fetus.
- external rotation of fetal head.
- extradition of fetal

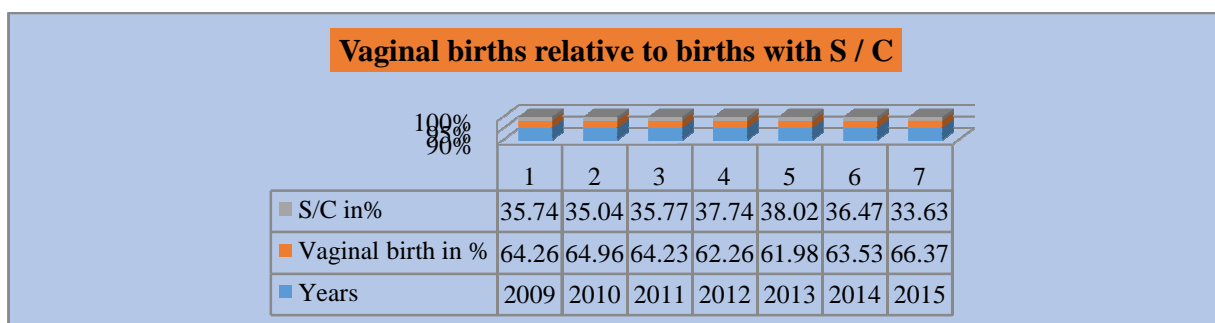
Third period of birth. Begins with the birth the child and ends with the complete release of the placenta along with membranes. This period consists of two phases: separation of the placenta from the uterine wall, expulsion of the placenta from the birth canal. This period lasts for 5-10 min but called normal up to 20-30 min. Immediately after birth the size of the uterus begins to decrease progressively but it is a period which requires observation by medical personnel at any moment because it is the risk for bleeding. Following the release of her placenta to the examination of any anomalies its membranes, cord observed and maternal and fetal surface. The third period begins with the birth of the child and ends with the complete release of the placenta along with membranes. This period consists of two phases: separation of the placenta from the uterine wall, expulsion of the placenta from the birth canal. This period lasts 5-10 min but called normal up to 20-30 min. Immediately after birth the size of the uterus begins to decrease progressively but it is a period which requires observation at any moment because it is the risk for bleeding.

Objective: The aim of the study is to assess the situation of births over a period of 6 years (2009 -2014) in the maternity hospital "Queen Geraldine" and what busy ratio of the maternity infant births with infant births nationally. To evaluate the situation of births in the country.

Methods: Our study is retrospective in assessing changing the number of births in years. Statistical analysis using Excel 2007 software and IBM SPSS 20.

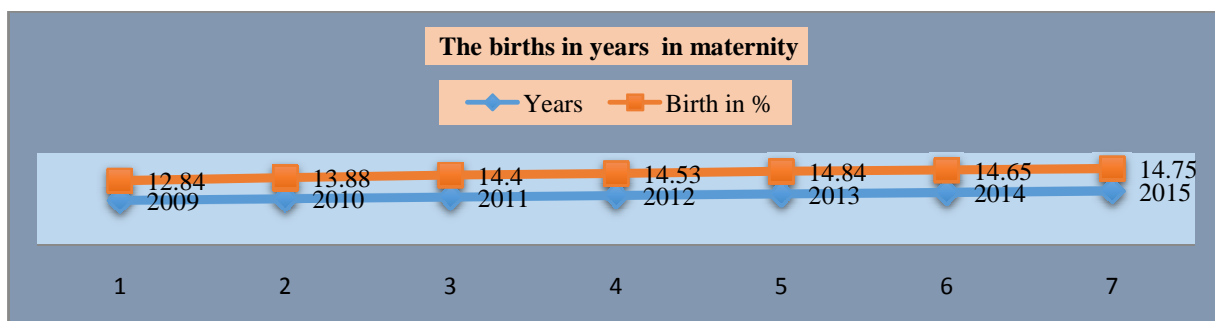
Results

Chart No.1 The vaginal births relative to births with S / C by years of our study in the maternity "Queen Geraldine"



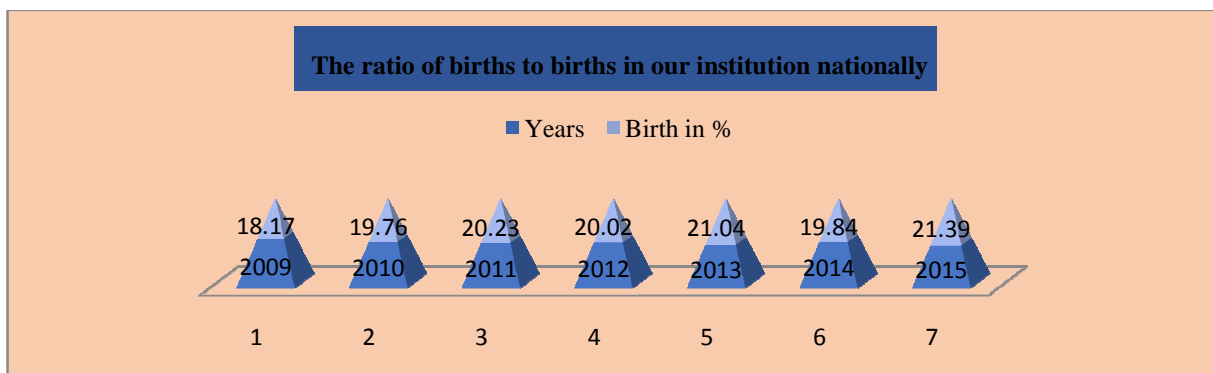
It showed that births with Sexio Caesarea are in high % in 2013 with 38.02% of total births. That it has recorded an increase in the number of births in recent years but observed a growing trend in the number of births with S / C. We found that the vaginal births relative to births with S / C by years was statistically significant and p value <0.001 for total births.

Chart No.2 How evolved the births in the maternity ward "Queen Geraldine" by years



In our study we found that the highest value of natural birth was 2013 with 14.84% of total deliveries to the 6- year-old. The Birth of baby appears as an urban phenomenon in recent years not only in our institution but also nationally. We found that the changing number of births in years was statistically significant and p value <0.001 for total births.

Chart No.3 Comparison of total births in the maternity "Queen Geraldine" with births nationally of Albania



Leads nationally in 2013 with 21.04 % of births. We found that the comparison of total births in the maternity "Queen Geraldine" with births nationally of Albania was statistically significant and p value <0.001 for total births

Conclusions

The prevalence of infant births is increasing, and most of them occur in this institution. The incidence of natural births represents 4.98% of births nationally, but we have a very high number of births with S / C which occupied 2.77% of births which, policy necessitates preventive interventional birth.

Policymakers and nongovernmental organizations should work with their policies on information regarding the promotion of the benefits of natural birth aimed at reducing the number of births with S / C.

Management of birth

The first phase of birth for women who appear in the admission to the birth. Woman with normal birth should be encouraged to take the position that what seems most appropriate. Women suggested several alternatives including the following:

- ✓ advised the woman to walk
- ✓ advised the position with shoulder
- ✓ advised sitting position
- ✓ advised resting in a position to the left (lateral decubitus)

Management includes: Periodic assessment of the frequency and strength of uterine contractions, cervical changes, changes in fetal station "and fetal position. Fetal heart rate monitored at least every 15 min, especially during and immediately after the contraction of the uterus; obstetrical units, fetal heart rate is constantly evaluated. The second stage of birth in women with the full opening of the cervix, fetal heart rate should be monitored or ausculted at least every 5 min and after each contraction.

The management in the second phase includes:

- ✓ observation

- ✓ intervention when have complications at birth with forceps or vacuum instrumental birth, or S / C (Caesarean Section).
- ✓ extraction of the fetus
- ✓ positioning mother advised as follows:
 - a) advised supine position with knees set (dorsal position)
 - b) advised lateral position (Sims)
 - c) advised partial sitting position is recommended
 - d) advised position on knees
- ✓ application of epiziotomia (being used routinely at this time, but current recommendations are limited, its use becomes more efficient according to the indicators of maternal or fetal)

Birth maneuvers are as follows: Neck checked for the presence of fetal umbilical cord. A newborn baby is stimulated aspirated and then transferred to the pediatric care or the mother's chest.

The third phase of birth

There are 3 classic signs which indicate that the placenta has begun to separate from the uterus:

- a) Increase uterine contractions;
- b) Umbilical cord unexpectedly extended;
- c) It happens a great hemorrhage

The observation made in every moment for women bleeding and psycho-emotional support given at every stage of labor.

Reference

1. ACOG. American College of Obstetricians and Gynecologists Practice Bulletin. Dystocia and augmentation of labor. Clinical management guidelines for obstetricians-gynecologists. No 49. American College of Obstetricians and Gynecologists: Washington, DC; December 2003.
2. Norwitz ER, Robinson JN, Repke JT. Labor and delivery. Gabbe SG, Niebyl JR, Simpson JL, eds. Obstetrics: Normal and problem pregnancies. 3rd ed. New York: Churchill Livingstone; 2003.
3. ACOG. American College of Obstetricians and Gynecologists Practice Bulletin. Intrapartum Fetal Heart Rate Monitoring. Clinical Management Guidelines for Obstetricians-Gynecologists. No 36. American College of Obstetricians and Gynecologists: Washington, DC; December 2005.
4. ACOG. American College of Obstetricians and Gynecologists Practice Bulletin. Obstetric Analgesia and Anesthesia. Clinical Management Guidelines for Obstetricians-Gynecologists. No 36. American College of Obstetricians and Gynecologists: Washington, DC; July 2002.
5. Friedman EA. Primigravid labor; a graphic statistical analysis. *Obstet Gynecol.* 1955 Dec. 6(6):567-89.

6. Friedman EA, Sachtleben MR. Dysfunctional labor. I. Prolonged latent phase in the nullipara. *Obstet Gynecol.* 1961 Feb. 17:135-48.
7. Friedman EA, Sachtleben MR. Dysfunctional labor. II. Protracted active-phase dilatation in the nullipara. *Obstet Gynecol.* 1961 May. 17:566-78.
8. Kilpatrick SJ, Laros RK Jr. Characteristics of normal labor. *Obstet Gynecol.* 1989 Jul. 74(1):85-7. [Medline].
9. Albers LL, Schiff M, Gorwoda JG. The length of active labor in normal pregnancies. *Obstet Gynecol.* 1996 Mar. 87(3):355-9.
10. Zhang J, Troendle JF, Yancey MK. Reassessing the labor curve in nulliparous women. *Am J Obstet Gynecol.* 2002 Oct. 187(4):824-8.
11. Menticoglou SM, Manning F, Harman C, et al. Perinatal outcome in relation to second-stage duration. *Am J Obstet Gynecol.* 1995 Sep. 173(3 Pt 1):906-12.
12. Janni W, Schiessl B, Peschers U, et al. The prognostic impact of a prolonged second stage of labor on maternal and fetal outcome. *Acta Obstet Gynecol Scand.* 2002 Mar. 81(3):214-21.
13. Cheng YW, Hopkins LM, Caughey AB. How long is too long: Does a prolonged second stage of labor in nulliparous women affect maternal and neonatal outcomes?. *Am J Obstet Gynecol.* 2004 Sep. 191(3):933-8.
14. Myles TD, Santolaya J. Maternal and neonatal outcomes in patients with a prolonged second stage of labor. *Obstet Gynecol.* 2003 Jul. 102(1):52-8.
15. O'Connell MP, Hussain J, Maclennan FA, et al. Factors associated with a prolonged second state of labour--a case-controlled study of 364 nulliparous labours. *J Obstet Gynaecol.* 2003 May. 23(3):255-7.
16. Senecal J, Xiong X, Fraser WD. Effect of fetal position on second-stage duration and labor outcome. *Obstet Gynecol.* 2005 Apr. 105(4):763-72.
17. Herman A, Zimerman A, Arieli S, et al. Down-up sequential separation of the placenta. *Ultrasound Obstet Gynecol.* 2002 Mar. 19(3):278-81.
18. Andersson O, Hellstrom-Westas L, Andersson D, Domellof M. Effect of delayed versus early umbilical cord clamping on neonatal outcomes and iron status at 4 months: a randomised controlled trial. *BMJ.* 2011 Nov 15. 343:d7157.
19. Prendiville WJ, Elbourne D, McDonald S. Active versus expectant management in the third stage of labour. *Cochrane Database Syst Rev.* 2000. CD000007.
20. Zhang J, Yancey MK, Klebanoff MA, et al. Does epidural analgesia prolong labor and increase risk of cesarean delivery? A natural experiment. *Am J Obstet Gynecol.* 2001 Jul. 185(1):128-34.
21. Rasmussen S, Bungum L, Hoie K. Maternal age and duration of labor. *Acta Obstet Gynecol Scand.* 1994 Mar. 73(3):231-4.
22. Vahratian A, Hoffman MK, Troendle JF, Zhang J. The impact of parity on course of labor in a contemporary population. *Birth.* 2006 Mar. 33(1):12-7.
23. Tuck SM, Cardozo LD, Studd JW, et al. Obstetric characteristics in different racial groups. *Br J Obstet Gynaecol.* 1983 Oct. 90(10):892-7.
24. Duignan NM, Studd JW, Hughes AO. Characteristics of normal labour in different racial groups. *Br J Obstet Gynaecol.* 1975 Aug. 82(8):593-601.
25. Sills ES, Baum JD, Ling X, et al. [Average length of spontaneous labor in Chinese primigravidas]. *J Gynecol Obstet Biol Reprod (Paris).* 1997. 26(7):704-10.

26. Greenberg MB, Cheng YW, Hopkins LM, et al. Are there ethnic differences in the length of labor?. *Am J Obstet Gynecol.* 2006 Sep. 195(3):743-8.
27. Sandall J, Soltani H, Gates S, Shennan A, Devane D. Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database Syst Rev.* 2013 Aug 21. 8:CD004667.
28. Grunebaum A, McCullough LB, Sapra KJ, et al. Apgar score of 0 at 5 minutes and neonatal seizures or serious neurologic dysfunction in relation to birth setting. *Am J Obstet Gynecol.* 2013 Oct. 209(4):323.e1-6.
29. Caldwell WE, Moloy HC. Anatomical variations in the female pelvis and their effect in labor with a suggested classification. *Am J Obstet Gynecol.* 1933. 26:479.
30. Friedman EA. *Labor. Clinical evaluation and management.* New York, NY: Appleton-Century-Crofts; 1967. 34.
31. Boggs W. Ultrasonography Assesses Gastric Aspiration Risk During Labor. *Medscape.* Feb 7 2014.
32. Bataille A, Rousset J, Marret E, et al. Ultrasonographic evaluation of gastric content during labour under epidural analgesia: a prospective cohort study. *Br J Anaesth.* 2014 Jan 8.
33. Alfirevic Z, Devane D, Gyte GM. Continuous cardiotocography (CTG) as a form of electronic fetal monitoring (EFM) for fetal assessment during labour. *Cochrane Database Syst Rev.* 2006. 3:CD006066.
34. Parer JT, Ikeda T. A framework for standardized management of intrapartum fetal heart rate patterns. *Am J Obstet Gynecol.* 2007 Jul. 197(1):26.e1-6.
35. East CE, Chan FY, Colditz PB, et al. Fetal pulse oximetry for fetal assessment in labour. *Cochrane Database Syst Rev.* 2007 Apr 18. CD004075.
36. Grobman WA, Simon C. Factors associated with the length of the latent phase during labor induction. *Eur J ObstetGynecolReprod Biol.* 2007 Jun. 132(2):163-6.
37. Hansen SL, Clark SL, Foster JC. Active pushing versus passive fetal descent in the second stage of labor: a randomized controlled trial. *Obstet Gynecol.* 2002 Jan. 99(1):29-34.
38. ACOG Practice Bulletin No. 80: premature rupture of membranes. Clinical management guidelines for obstetrician-gynecologists. *Obstet Gynecol.* 2007 Apr. 109(4):1007-19.
39. Martin JA, Hamilton BE, Sutton PD, et al. Births: final data for 2004. *Natl Vital Stat Rep.* 2006 Sep 29. 55(1):1-101.
40. Roberts CL, Taylor L, Henderson-Smart D. Trends in births at and beyond term: evidence of a change?. *Br J ObstetGynaecol.* 1999 Sep. 106(9):937-42.
41. Chinnock M, Robson S. Obstetric trainees' experience in vaginal breech delivery: implications for future practice. *Obstet Gynecol.* 2007 Oct. 110(4):900-3.
42. Bofill JA, Vincent RD, Ross EL, et al. Nulliparous active labor, epidural analgesia, and cesarean delivery for dystocia. *Am J Obstet Gynecol.* 1997 Dec. 177(6):1465-70.
43. Powell J, Gilo N, Foote M, et al. Vacuum and forceps training in residency: experience and self-reported competency. *J Perinatol.* 2007 Jun. 27(6):343-6.
44. Zhang J, Landy HJ, Branch DW, et al. Contemporary patterns of spontaneous labor with normal neonatal outcomes. *Obstet Gynecol.* 2010 Dec. 116(6):1281-7.
45. Bloom SL, McIntire DD, Kelly MA, et al. Lack of effect of walking on labor and delivery. *N Engl J Med.* 1998 Jul 9. 339(2):76-9.

46. O'Driscoll K, Meagher D. Introduction. O'Driscoll K, Meagher D, eds. Active Management of Labour. 2nd ed. Eastbourne, United Kingdom: BalliereTindall; 1986.
47. O'Driscoll K, Foley M, MacDonald D. Active management of labor as an alternative to cesarean section for dystocia. *Obstet Gynecol.* 1984 Apr. 63(4):485-90.