



## Comparison of Neonatal Deliveries in Hospital Verses

### Domestic Deliveries in Lahore City

Robina Majeed<sup>1</sup>, Nasreen Asghar<sup>2</sup>, Brig.Ghulam Mustafa<sup>3\*</sup>

Department Of Public Health, Hazara University Mansehra\*<sup>1</sup>

Senior Lecturer at sharif college of nursing, Pakistan \*<sup>2</sup>

Principal at vertex college science & technology Islamabad .<sup>3\*</sup>

### Abstract

Pregnancy, also known as gravidity or gestation, is the time during which one or more offspring develops inside a woman .It usually lasts around 40 weeks from the last menstrual period (LMP) and ends in childbirth. Childbirth, also known as labour and delivery, is the ending of a pregnancy by one or more babies leaving a woman's uterus. There was about 135 million births globally.*www.cia.gov*. About 15 million were born before 37 weeks of gestation., while between 3 and 12% were born after 42 weeks. Childbirth routinely occurs in hospitals in much of Western society. Before the 20th century and in some countries to the present day it has more typically occurred at home. The aim of this research was find out the knowledge and thinking regarding midwifery and hospital deliveries and how the midwife play a role in our community against the government hospital regarding neonatal care and its complications. The study design was select to conduct this research. This is the comparative study based on the dichotomous types of questioner on the primary data for one time. For this research target population as: Patients of GOVT hospital and midwifery Homes. The research was conducted within approximately 100 samples size. This was random convenient sampling method use in study to assess the response about neonatal care in GOVT hospital and Midwifery homes. Ethical considerations were followed while conducting the research at every step. A permission letter was taken from the principal of Vertex College to conduct the research. Before obtaining research data the permission were taken from all the family. The time limit was be 3-4 months approximately for conducting this research.

All collected data about research project was interpreted and analyzed on Statistical Package of Social Science (SPSS).

**Keywords:** LMP =last menstrual period ,CRD= complete randomized design, ND=neonatal deliveries.

### Introduction:

The choice to give birth at home with a regulated midwife in attendance

became available to expectant women in British Columbia in 1998. The purpose of this study was to evaluate the safety of home birth by comparing prenatal outcomes for

planned home births attended by regulated midwives with those for planned hospital births. We compared the outcomes of 862 planned home births attended by midwives with those of planned hospital births attended by either midwives ( $n = 571$ ) or physicians ( $n = 743$ ). Comparison subjects who were similar in their obstetric risk status were selected from hospitals in which the midwives who were conducting the home births had hospital privileges. Our study population included all home births that occurred between Jan. 1, 1998, and Dec. 31, 1999.

Women who gave birth at home attended by a midwife had fewer procedures during labour compared with women who gave birth in hospital attended by a physician. After adjustment for maternal age, lone parent status, income quintile, use of any versus no substances and parity, women in the home birth group were less likely to have epidural analgesia (odds ratio 0.20, 95% confidence interval [CI] 0.14–0.27), be induced, have their labours augmented with oxytocin or prostaglandins, or have an episiotomy. Comparison of home births with hospital births attended by a midwife showed very similar and equally significant differences. The adjusted odds ratio for

cesarean section in the home birth group compared with physician-attended hospital births was 0.3 (95% CI 0.22–0.43). Rates of perinatal mortality, 5-minute Apgar scores, meconium aspiration syndrome or need for transfer to a different hospital for specialized newborn care was very similar for the home birth group and for births in hospital attended by a physician. Midwives in Ontario, Canada, provide care in the home and hospital and are required to submit data for all births to the Ontario Ministry of Health database. The purpose of this study was to compare maternal and perinatal/neonatal mortality and morbidity and Intrapartum intervention rates for women attended by Ontario midwives who planned a home birth compared with similar low-risk women who planned a hospital birth between 2003 and 2006. The database provided outcomes for all women planning a home birth at the onset of labor ( $n = 6,692$ ) and for a cohort, stratified by parity, of similar low-risk women planning a hospital birth. The rate of perinatal and neonatal mortality was very low (1/1,000) for both groups, and no difference was shown between groups in perinatal and neonatal mortality or serious morbidity (2.4% vs. 2.8%; relative risk [RR], 95% confidence intervals [CI]: 0.84 [0.68–1.03]). To

compare perinatal mortality and severe perinatal morbidity between planned home and planned hospital births, among low-risk women who started their labour in primary care. A nationwide cohort study. The entire Netherlands. A total of 529 688 low-risk women who were in primary midwife-led care at the onset of labour. Of these, 321 307 (60.7%) intended to give birth at home, 163 261 (30.8%) planned to give birth in hospital and for 45 120 (8.5%), the intended place of birth was unknown. Analysis of national perinatal and neonatal registration data, over a period of 7 years. Logistic regression analysis was used to control for differences in baseline characteristics. Intrapartum death, Intrapartum and neonatal death within 24 hours after birth, Intrapartum and neonatal death within 7 days and neonatal admission to an intensive care unit. No significant differences were found between planned home and planned hospital birth (adjusted relative risks and 95% confidence intervals: Intrapartum death 0.97 (0.69 to 1.37), Intrapartum death and neonatal death during the first 24 hours 1.02 (0.77 to 1.36), Intrapartum death and neonatal death up to 7 days 1.00 (0.78 to 1.27), admission to neonatal intensive care unit 1.00 (0.86 to 1.16). This study shows that planning a

home birth does not increase the risks of perinatal mortality and severe perinatal morbidity among low-risk women, provided the maternity care system facilitates this choice through the availability of well-trained midwives and through a good transportation and referral system.

To evaluate the safety of home births in North America involving direct entry midwives, in jurisdictions where the practice is not well integrated into the healthcare system. Prospective cohort study. All home births involving certified professional midwives across the United States (98% of cohort) and Canada, 2000.

Medical intervention rates included epidural (4.7%), episiotomy (2.1%), forceps (1.0%), vacuum extraction (0.6%), and caesarean section (3.7%); these rates were substantially lower than for low risk US women having hospital births. The Intrapartum and neonatal mortality among women considered at low risk at start of labour, excluding deaths concerning life threatening congenital anomalies, was 1.7 deaths per 1000 planned home births, similar to risks in other studies of low risk home and hospital births in North America. No mothers died. To assess procedures and outcomes in deliveries planned at home

versus those planned in hospital among women choosing the place of delivery. Follow up study of matched pairs. Antenatal clinics and reference hospitals in Zurich between 1989 and 1992. 489 women opting for home delivery and 385 opting for hospital delivery; the women comprised all those attending members of the study team for antenatal care and those attending the reference hospital for antenatal care who could be matched with the women planning home confinement. Need for medication and incidence of interventions during delivery (caesarean section, forceps, vacuum extraction, episiotomy), duration of labour, occurrence of severe perineal lesions, maternal blood loss, and perinatal morbidity and death. All women were followed up from their first antenatal visit till three months after delivery. Referrals during pregnancy (n = 37) and labour (70), changes of mind (15 home to hospital, eight hospital to home), and 17 miscarriages resulted in 369 births occurring at home and 486 in hospital. Van der Kooy 2011. The purpose of our study was to compare the Intrapartum and early neonatal mortality rate of planned home birth with planned hospital birth in community midwife-led deliveries after case mix adjustment. The perinatal outcome of 679,952 low-risk women was obtained from

the Netherlands Perinatal Registry (2000–2007). This group represents all women who had a choice between home and hospital birth. Two different analyses were performed: natural prospective approach (intention-to-treat-like analysis) and perfect guideline approach (per-protocol-like analysis). Unadjusted and adjusted odds ratios (ORs) were calculated. Case mix was based on the presence of at least one of the following: congenital abnormalities, small for gestational age, preterm birth, or low Apgar score. We also investigated the potential risk role of intended place of birth. Multivariate stepwise logistic regression was used to investigate the potential risk role of intended place of birth. Intrapartum and neonatal death at 0–7 days was observed in 0.15% of planned home compared with 0.18% in planned hospital births (crude relative risk 0.80, 95% confidence interval [CI] 0.71–0.91). After case mix adjustment, the relation is reversed, showing nonsignificant increased mortality risk of home birth (OR 1.05, 95% CI 0.91–1.21). In certain subgroups, additional mortality may arise at home if risk conditions emerge at birth (up to 20% increase). Home birth, under routine conditions, is generally not associated with increased Intrapartum and

early neonatal death, yet in subgroups, additional risk cannot be excluded.

William Fraser, 2007 The purpose of this study was to compare indicators of process and outcome of midwifery services provided in the Quebec pilot projects to those associated with standard hospital-based medical services. Women receiving each type of care (961 per group) were matched on the basis of socio-demographic characteristics and level of obstetrical risk. We found midwifery care to be associated with less obstetrical intervention and a reduction in selected indicators of maternal morbidity (caesarean section and severe perineal injury). For neonatal outcome indicators, midwifery care was associated with a mixture of benefits and risks: fewer babies with preterm birth and low birth weight, but a trend toward a higher stillbirth ratio and more frequent requirement for neonatal resuscitation. The study design does not permit to conclude that the associations were causal in nature. However, the high stillbirth rate observed in the group of women who were selected for midwife care raises concerns both regarding the appropriateness of the screening procedures for admission to such care and regarding the quality of care itself.

Patricia A 2007 The impact of midwifery versus physician care on perinatal outcomes in a population of women planning birth in hospital has not yet been explored. We compared maternal and newborn outcomes between women planning hospital birth attended by a midwife versus a physician in British Columbia, Canada. All women planning a hospital birth attended by a midwife during the 2-year study period who were of sufficiently low-risk status to meet eligibility requirements for home birth as defined by the British Columbia College of Midwives were included in the study group ( $n = 488$ ). The comparison group included women meeting the same eligibility requirements but planning a physician-attended birth in hospitals where midwives also practiced ( $n = 572$ ). Outcomes were ascertained from the British Columbia Reproductive Care Program Perinatal Registry to which all hospitals in the province submit data..

## **Materials and methods:**

The study design was select to conduct this research. This is the comparative study based on the dichotomous types of questioner on the primary data for one time. For this research target population as:

Patients of GOVT hospital and midwifery Homes.

The research was conducted within approximately 100 samples size.

This was random convenient sampling method use in study to assess the response about neonatal care in GOVT hospital and Midwifery homes.

While conducting research these criteria's were strictly followed to attain a valuable data. All the pregnant women were included which are live in Lahore those families were exclude which are not live in Lahore.

Ethical considerations were followed while conducting the research at every step. A permission letter was taken from the principal of Vertex College to conduct the research. Before obtaining research data the permission were taken from all the family.

The time limit was be 3-4 months approximately for conducting this research In this research the tool was questionnaire for collecting information related to conducting research. The people of different families of GOVT hospital and Midwifery homes. All collected data about research project was interpreted and analyzed on Statistical Package of Social Science (SPSS).

## Results:

According to the question 15 % female knows about the neonatal care and 85% are not know about this.

75% female including all ages don't known about 25% known regarding the complication of the neonatal complication.

Out of 100 just 40% female knows about the midwifery practice while remaining don't know about this.

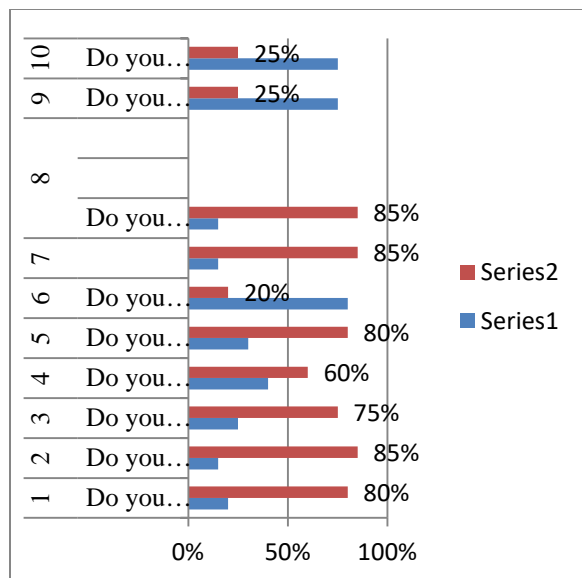
Only 30 % female are agree that midwifery can handle the complication situation during deliveries and neonatal complications.

More than 80% re agree that morbidity rate is very high during midwifery deliveries while remaining are against this comment.

More then 85 % female including all age are rejecting the preference of midwifery deliveries

Morbidity rate of newborn in hospital is high 75 % disagree about this concept.

More than 75% are agree that and 25%are against this.



## Discussion:

According to the results of this question 20% people are not know about the pregnancy complication and don't known about the complication during the pregnancy . According to the question 15 % female knows about the neonatal care and 85% are not know about this. 75% female including all ages don't know about 25% known regarding the complication of the neonatal complication. Out of 100 just 40% female knows about the midwifery practice while reaming don't know about this. Only 30 % female are agreeing that midwifery can handle the complication situation during deliveries and neonatal complications. More than 80% re agree that morbidity rate is very high during midwifery deliveries while reaming are against this comment. Moere

then 85 % female including all age are rejecting the preference of midwifery deliveries. Morbidity rate of newborn in hospital is high 75 % disagree about this concept. More than 75% are agree that and 25%are against this.

Planned home birth within the Dutch maternity care system has a lower crude mortality rate compared with a community midwife-led planned hospital birth. However, after case mix adjustment, the relation is reversed, showing a nonsignificant increased perinatal mortality rate of home birth. Excess setting-dependent mortality may arise at home if risk conditions are present or emerge at birth, yet remnant confounding by an indication effect (Big 4 conditions are more prevalent in the hospital) and low mortality prevalence limit statistical proof. Authors favoring a comparison of settings among “suitable” home births only (perfect guideline approach) usually exclude risk conditions with a potential setting effect. This mechanism may explain the apparently contradictory results from previous studies.. Ackermann-Liebrich U, etal 1999. Janssen PA2007

A strength of this study was the size of the study population, which reflects the

complete Dutch experience from 2000 to 2007. The amount of missing explanatory data is negligible; mortality data have been shown to be complete. No annual trends are observed in the relations shown, except for a minimal gradual decrease in total perinatal mortality. Ravelli AC, 2006.

Our case mix adjustment proved to be essential. The assumption of comparability across home compared with hospital populations appeared not to be justifiable judging from the unequal prevalence of Big 4 conditions. These primarily have their origin in early negative fetal conditions and the disadvantaged genetic background of the parents. Only in the case of a low Apgar score, one may argue that the midwifery management during labor might influence its occurrence, whereas a management role in small for gestational age, spontaneous prematurity, and congenital anomalies at that stage is unlikely. We decided to include low Apgar cases assuming the role of management to be small compared with the disadvantage of the home setting once a child with a persistent low Apgar score is born. Thus, our point of departure starts from the risk challenge represented by Big 4 at the onset of labor and investigates whether setting matters in terms of

prognosis. The mechanisms underlying the apparent favorable selection for home birth are still to be elucidated. Self-selection by pregnant women can coincide with implicit or explicit selection by the midwife who may tend to refer to the hospital if she feels uncomfortable with the risk level at home. The difference in the ratio home: hospital community midwifery-led deliveries among the four largest Dutch cities suggests the presence of substantial professional and setting effects. In Amsterdam and Utrecht, the ratio is 2:1, and in Rotterdam and the Hague, it is 1:2.

## RECOMMENDATIONS

According to the results of the study, the researcher recommends to: Training course is necessary to increase midwifery' knowledge toward neonatal care and there complications infections. Training course should be regularly done and updated in view of changing knowledge and midwifery practices. Training, counseling should be regularly to the pregnant lady regarding knowledge about pregnancy, midwifery and hospital delivery.





## Conclusion

Through the present study findings, the researcher can conclude the following: The majority of midwives have less than 5 years of practical training in the hospital. Most of the midwives have less than 5 training course of nosocomial infection. Midwives do not have adequate and appropriate knowledge about neonatal care management. Midwives want to gain the training and attend the seminar on neonatal care management and deliveries complication. The awareness programs in the community regarding midwifery'.

## References:

1. "Definition of Midwifery". *Encyclopaedia Britannica*. Retrieved 2015.
2. "Die Hebamme in Belgien". *Belgian Midwives Association (BMA)*. Retrieved 2015.
3. "International Definition of the Midwife". *International Confederation of Midwives*. Retrieved 2015.
4. "Les compétences des sages-femmes". *Ordre des sages-femmes*. Retrieved 2015.
5. "Pregnancy: Condition Information". <http://www.nichd.nih.gov/>. December 19, 2013. Retrieved 14 March 2015.
6. "Preterm birth Fact sheet N363". *WHO*. November 2015. Retrieved 30 July 2016.
7. "Reproductive Health and Research Publications: Making Pregnancy Safer". *World Health Organization Regional Office for South-East Asia*. 2009. Retrieved 7 December 2009.
8. "The World Factbook". [www.cia.gov](http://www.cia.gov). July 11, 2016. Retrieved 30 July 2016.
9. "Vecmātes specialitātes nolikums". *Latvijas Vecmāšu Asociācija*. Retrieved 2015.
10. "Verloskundige rollen". *Academie Verloskunde Maastricht*. Retrieved 2015.
11. "Waarom Verloskunde?". *Academie Verloskunde Amsterdam Groningen*. Retrieved 2015.
12. "What are some common signs of pregnancy?". <http://www.nichd.nih.gov/>. July 12, 2013. Retrieved 14 March 2015.
13. "What Are the Duties of a Neonatal Nurse?". *learn.org*. Retrieved 2016-05-17.
14. "What is prenatal care and why is it important?". <http://www.nichd.nih.gov/>.

- July 12, 2013. Retrieved 14 March 2015. External link in |website= (help)
15. ^ Jump up to:<sup>a b</sup> "What are some common complications of pregnancy?". <http://www.nichd.nih.gov/>. July 12, 2013. Retrieved 14 March 2015. External link in |website= (help)
16. ^ Jump up to:<sup>a b c d e f g</sup> "Pregnancy: Condition Information". <http://www.nichd.nih.gov/>. December 19, 2013. Retrieved 14 March 2015.
17. ^ Jump up to:<sup>a b c d e f g</sup> Sedgh, G; Singh, S; Hussain, R (September 2014). "Intended and unintended pregnancies worldwide in 2012 and recent trends". *Studies in Family Planning*. **45** (3): 301–14. PMC 4727534  . PMID 25207494. doi:10.1111/j.1728-4465.2014.00393.x.
18. ^ Jump up to:<sup>a b c</sup> GBD 2013 Mortality and Causes of Death, Collaborators (17 December 2014). "Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013". *Lancet*. **385**: 117–171. PMC 4340604  . PMID 25530442. doi:10.1016/S0140-6736(14)61682-2.
19. ^ Jump up to:<sup>a b</sup> Leveno, Kenneth (2013). "52". *Williams manual of pregnancy complications*. New York: McGraw-Hill Medical. pp. 323–334. ISBN 9780071765626.
20. Wiegers TA, Keirse MJ, van der Zee J, Berghs GA. Outcome of planned home and planned hospital births in low risk pregnancies: prospective study in midwifery practices in The Netherlands. *BMJ* 1996;313:1309–13.
21. 10. Wax JR, Pinette MG, Cartin A, Blackstone J. Maternal and newborn morbidity by birth facility among selected United States 2006 low-risk births. *Am J Obstet Gynecol* 2010;202:152.e1–5.
22. 12. Anderson RE, Murphy PA. Outcomes of 11,788 planned home births attended by certified nurse-midwives. A retrospective descriptive study. *J Nurse Midwifery* 1995;40:483–92.
23. 13. Bastian H, Keirse MJ, Lancaster PA. Perinatal death associated with planned home birth in Australia: population based study. *BMJ* 1998;317:384–8.
24. 14. Chamberlain G, Wraight A, Crowley P. Birth at home. *Pract Midwife* 1999;2:35–9.
25. 15. de Jonge A, van der Goes BY, Ravelli AC, Amelink-Verburg MP, Mol BW, Nijhuis JG, et al.. Perinatal mortality and morbidity in a nationwide

- cohort of 529,688 low-risk planned home and hospital births. BJOG 2009;116:1177–84.
26. 16. Evers AC, Brouwers HA, Hukkelhoven CW, Nikkels PG, Boon J, van Egmond-Linden A, et al.. Perinatal mortality and severe morbidity in low and high risk term pregnancies in the Netherlands: prospective cohort study. BMJ 2010;341:c5639.
27. 17. Lindgren HE, Radestad IJ, Christensson K, Hildingsson IM. Outcome of planned home births compared to hospital births in Sweden between 1992 and 2004. A population-based register study. Acta Obstet Gynecol Scand 2008;87:751–9.
28. 18. Pang JW, Heffelfinger JD, Huang GJ, Benedetti TJ, Weiss NS. Outcomes of planned home births in Washington State: 1989–1996. Obstet Gynecol 2002;100:253–9.
29. 19. Hildingsson IM, Lindgren HE, Haglund B, Radestad IJ. Characteristics of women giving birth at home in Sweden: a national register study. Am J Obstet Gynecol 2006;195:1366–72.
30. Royal College of Obstetricians and Gynaecologists/Royal College of Midwives. Home births. Joint statement No. 2; 2007. Available at: [www.rcog.org.uk/files/rcog-corp/uploaded-](http://www.rcog.org.uk/files/rcog-corp/uploaded-)

[files/JointStatementHomeBirths2007.pdf](http://files/JointStatementHomeBirths2007.pdf)

. Retrieved January 5, 2011.

GSJ