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Birthing Center versus Hospitalized Birth

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### Abstract

There are many risks and benefits of giving birth at a birthing center versus a hospital.

Determining the location of birth is an important decision, as women in the world today have many options of where to have their child. Hospitals and birthing centers are two places where medical professionals provide prenatal, labor and delivery, and post-partum care for the mother and fetus during this memorable time. While hospital nurses and physicians provide advanced medical care, birthing centers focus on holistic care of the family unit emphasizing mental, spiritual, and physical health. Doctors often perform cesarean sections (C-sections) for non-medical reasons, causing an increase in preterm births and health complications in both mother and baby. The rate of C-sections in the United States has increased astronomically since 1996 from a rate of 21% to 32.7% of births. Birthing centers have a decreased rate of C-sections in relation to hospital births and therefore have fewer health complications. This differences between hospitalized deliveries and birthing center deliveries are evident in relation to maternal and fetal health, and global, economical, and political implications. Overall, birthing centers provide healthcare to low risk pregnant women achieving better health outcomes than a hospital.

### Birthing Center versus Hospitalized Birth

Many different choices exist for pregnant mothers to make in the world today. Choosing a healthcare provider and a facility in which to give birth affects the newborn's health, mother's health, and satisfaction of the birth experience. Hospital staff view birth as an illness that needs to be treated whereas midwives believe birth is a natural process that women have gone through for centuries. Although many types of health care providers care for laboring woman, midwives perform the majority of care in birthing centers (American Association of Birthing Centers [AABC], 2015). Low risk laboring mothers should give birth at a birthing center as it provides more benefits than a hospitalized birth experience including a decreased risk of cesarean section (C-section), lower hospital expense, and better neonatal health outcomes.

#### **Background**

Hospitalized births are most commonly performed in the United States today as society sees hospitalization safer for neonatal and maternal health than birthing centers or home births. The U.S. has the second highest infant mortality rate (IMR) compared to most European countries of six deaths in 2011 and one of the highest rates of pregnancy-related maternal deaths in the world of 17.8 in 2012 (MacDorman, Hoyert, & Mathews, 2013b; Centers for Disease Control and Prevention [CDC], 2015). The U.S. IMR is the number of deaths under the age of one per 1,000 live births and the pregnancy-related mortality ratio is the amount of maternal deaths per 100,000 lives (CDC, 2015). A C-section is a surgical procedure to remove a baby from its mother's abdomen by making an incision either vertical or transverse performed when labor is unable to be completed or the health of the mother or baby is compromised (MayoClinic Staff, 2015).

Birthing centers have been in existence since the 1970's and continue to increase in number throughout the world (MacDorman, Declerq, & Mathews, 2013a). As of 2013, only 37

states in the U.S. contained birthing center facilities, leading to a lack of access for expectant mothers (MacDorman et al., 2013a). In order for a birthing center to be built in Illinois, several strict requirements must be met. In Illinois, the proposed facility needs to identify the geographic location of the facility within an area of a shortage of health professionals, document the center will have no more than ten beds and will be certified to participate in the Medicare and Medicaid programs (Illinois Health Facilities and Service Review Board [FSRB], 2015; DiVarco, 2010). Birthing center employees must operate under a hospital license or have an agreement with a licensed hospital for the referral and transfer of patients in need of an emergency cesarean delivery within 30 minutes of the hospital (DiVarco, 2010). Birthing centers must also provide prenatal care to be established in Illinois (FSRB, 2015). Birthing center employees can be registered nurses, certified nurse midwives, obstetricians, gynecologists, family practice doctors, or physician assistants (O'Hara, Frazier, Stembridge, McKay, Mohr, & Shalat, 2013). Multidisciplinary care allows for a decrease in maternal and newborn fatalities and is contrary to what society believes in and portrayed in the media (Chan, 2015). Birthing centers can utilize solely midwives to provide care or take a multi-disciplinary approach with many different staff members working as a team. Midwives are often the primary care provider at birthing centers compared to doctors at hospitals.

The first midwives came to U.S. in 1925 from Britain with Mary Breckinridge, a nurse midwife and founder of The Frontier Nursing Service [FNS] in the mountains of Kentucky (Walker, Lannen, & Rossie, 2014). In 1925, the first school for certification of nurse midwives opened in Manhattan, NY (Walker et al., 2014). Under the scope of practice midwives can diagnose, treat, and write prescriptions under a collaborative agreement with an obstetrician

(Walker et al., 2014). Midwives are certified to deliver babies and coach mothers on laboring techniques while utilizing holistic healthcare.

Holistic healthcare consists of caring for the entirety of a person including their spiritual, emotional, and physical health. Midwives provide holistic and natural care utilizing less medical interventions and encouraging partnership between a woman and her family (Walker et al., 2014). Birthing center midwives believe in the therapeutic process of being present through active listening and advocate for patients (American College of Nurse-Midwives [ACNM], 2015). Midwives attend 70% of births in Japan and Europe as compared to less than 8% of births in the U.S. (Lake & Epstein, 2008). Launching more birthing centers will allow more midwives to practice leading to better maternal fetal care (Lake & Epstein, 2008).

### **Birthing center advantages**

One benefit of delivering a child in a birthing center is the cost is less than a hospitalized delivery due to a decreased rate of C-sections compared to a hospital (Jones, 2013; National Partnership for Women & Families, 2015). Any major surgery is a cost to the mother for the anesthesia utilized, the anesthesiologist's time, the surgeon's time, cost of potential complications, and supplies utilized in the procedure (National Partnership for Women & Families, 2015). Individuals at birthing centers may feel more pain than those at hospitals with epidurals, but will likely feel accomplished once the baby is delivered, as birth is a difficult process. A woman's body releases oxytocin when it senses the baby so an oxytocic does not need to be administered in most pregnancies (Lake & Epstein, 2008). Unlike policies in hospitals, birthing centers allow mothers to consume food before and after the pushing period indicating no harm to the mother or baby (Bellefonds, 2015). Fetal monitoring is not utilized in birthing centers unless something appears critically wrong with the fetus, such as contractions

occurring more than every two minutes, or a non-active fetus who does not respond to stimuli including scalp stimulation.

Birthing centers promote skin-to-skin bonding immediately after birth between the mother and the newborn. The philosophy of birthing centers is providing family-centered care. Midwives believe in the natural process of birth and labor and in the empowerment of women (AWHOON, 2010). Mothers and newborns release oxytocin when skin-to-skin contact occurs allowing for a sense of euphoria and happiness (Henderson, 2014). When the newborn is placed directly on the mother's chest, the baby should be able to sense pheromones; chemicals in the mother's breast milk, signaling it to crawl towards the nipples (Henderson, 2014). This technique, called the breast crawl, promotes breastfeeding in the infant and makes it easier to get milk in future feedings (Henderson, 2014). At the completion of the crawl, neurons in the brain fire creating a connection between moving towards the nipple and getting rewarded with milk (Lake & Epstein, 2008).

A woman in labor can maintain stability in health for herself and the fetus without the use of medical interventions including intravenous or intramuscular Pitocin, intravenous fluids, pain medication, or C-sections (Arcia, 2015). Birthing centers utilize different positioning techniques to allow the natural progression of labor in pregnant mothers. However, if complications arise, an intravenous line is important for fluids and tocolytic administration to prevent post-partum hemorrhage (PPH). Post-partum hemorrhage is a blood loss more than 500 milliliters (mL) after a vaginal delivery and more than 1000 mL of blood after a C-section (Lowdermilk et al., 2010). Encouraging patients at birthing centers to have a saline lock in place is a compromise between having a completely natural experience and having several medical interventions performed (What to Expect, 2014). Potential intravenous placement is important in case venous access is

needed with nothing administered unless absolutely necessary. Since C-sections do not occur in birthing centers, there is less cost for the patient and fewer complications such as blood loss and infection (Jones, 2013). In a study conducted by Dekker (2015), 94% of woman at birthing centers were able to give birth vaginally. The six percent of mothers who were unable to give birth traditionally were transferred to a hospital for a C-section (Dekker, 2015).

Although hospitals are beneficial for high-risk pregnant women, there are several consequences that occur to low risk laboring mothers, which make up 85% of all hospital births (Dekker, 2015). Families who decide to give birth in a hospital setting may experience many medical interventions. Physicians may induce labor utilizing Pitocin, an oxytocic, to deliver a baby faster. This may be performed if a baby is past term, for the convenience of the provider or patient's schedule, or to protect the mother's health, when truly the drug should solely be used for medical reasons. In hospitals, families are often relocated to different rooms depending on the stage of labor. For example, many hospitals have a separate antepartum floor, labor and delivery floor, neonatal intensive care unit (NICU), and postpartum care floor. Constant relocation adds stress to a family and takes away from the focus of the birth experience.

Hospital physicians also perform C-sections in relation to the convenience of their time schedule, which causes complications in maternal and fetal health. The U.S. preterm birth rate in 2014 was 9.75% and the C-section rate was 32.7% in 2013, which has been increasing since 1997 when the rate was around 21% (American College of Obstetricians and Gynecologists [ACOG], 2014; CDC, 2015; Niino, 2011). Hospitals utilize unnecessary interventions for laboring health women including the administration of Pitocin, pain medication, fluid boluses, and epidurals. Pitocin-induced contractions cause decreased oxygen flow to the baby and strong pain for the mother and leads to an increase in C-sections (Lake & Epstein, 2008). Women in the



hospital receive an epidural and pain medication do not remember their birth experience as well as those in birthing centers who give birth without interventions.

### **Hospital advantages**

Infant mortality can occur in birthing centers if the mother is a high-risk pregnancy. Since simple medical interventions are not utilized frequently in birthing centers, patients are transferred to hospitals for surgery, neonatal resuscitation, or for certain medications. The maximum distance for a hospital to be from a birthing center is 30 minutes so the family would hopefully get to the facility in time to prevent further injury (Illinois Health Facilities and Service Review Board, 2015). The prolonged length of travel can put the newborn and mother at risk for further health complications, including death. Another disadvantage of planning to deliver at a birthing center is there are not many locations in the U.S. As of 2013 there were 265 freestanding birthing centers in the country (AABC, 2014). Since birthing centers are rare to find, families have a hard time accessing the facilities.

Benefits exist to planning a hospitalized birth. These benefits include surgeons who are available 24 hours a day, thorough fetal and maternal monitoring, and obstetricians who know how to deliver a baby and treat mothers should complications arise. The last infant mortality rate (IMR) collected by the CDC in the United States in 2013 was 5.96 births per 1,000 infants (CDC, 2015). According to the CDC, preterm birth, defined as birth occurring before 37 weeks accounts for 12% of all births and low birth weight, defined as a newborn who weighs less than 2500 grams accounts for 8.1% of all hospital births (CDC, 2015; Lowdermilk et al., 2010; MacDorman et al., 2013b). These preterm births and low birth weights occur from maternal health problems in high-risk women and induction of labor before it is necessary.

### **Global and Cultural Implications**

Birthing centers in the U.S. promote the use of complementary and alternative medicine (CAM) instead of utilizing medical interventions. According to Ho, Rowland-Seymour, Frankel, Li, and Mao (2014) CAM is defined as “a group of modalities, practices, and products that either supplement or substitute conventional medicine” (pp. 465-466). Many hospitals in other countries utilize CAM on a daily basis, but it is rarely seen on labor and delivery floors in the U.S. today. Midwives value holistic healthcare as they include CAM in their care utilizing hydrotherapy, hypnotherapy, and massage (ACNM, 2015). Hydrotherapy, or water birth, is a midwife-led activity used in birthing centers at a rate of 15-64% during labor and 9-31% during birth (ACNM, 2015). There are no significant complications or risks associated with water births but further research needs to occur. The International Federation of Obstetricians and Gynecologist (FIGO) recently established a mother-baby friendly initiative including nondiscriminatory policies in place with a golden hour of skin-to-skin contact after delivery and a greater encouragement of breastfeeding (Lalonde & Miller, 2015). For example, baby friendly hospitals do not carry formula samples anymore as a way to promote breastfeeding. Lalonde and Miller claim the FIGO believe the baby-friendly initiative will allow for major changes in the quality of care provided to women and newborns at maternity facilities (2015).

Other countries have a decreased maternal mortality ratio and a lower IMR than the U.S., as fewer C-sections are performed and more midwives care for laboring women (Chan, 2015). Chan (2015) displays evidence that midwives save lives and decrease the mortality rate of newborns and mothers in Sweden. An increase in midwifery programs in the U.S. is needed in order to provide for more certified nurse midwives to decrease the IMR and pregnancy-related maternal mortality ratio.

### **Financial Implications**

Birthing centers cost less than hospitalized births as they limit the use of medical interventions (Dekker, 2015). Interventions performed in hospitals can include placement of an epidural, administration of IV fluids, pain medication, episiotomies, C-sections, and induction of labor either for health reasons, physician preference or mother's preference (Dekker, 2015). Midwives and other birthing center employees disagree with the induction of a baby before 39 weeks, especially if the mother and fetus are healthy. According to Walker, Lannen, & Rossie (2014), many insurance companies will cover the cost of birthing centers including Blue Cross Blue Shield (BCBS), Humera, and Medicaid. Medicaid will reimburse hospitals \$3,998 for an uncomplicated vaginal delivery and \$1,907 at birthing centers (Dekker, 2015). This price difference illustrates birthing centers are cheaper with a cost of about \$1,500-\$2,000 to families and about \$10,000 at a hospital for families with Medicaid (Dekker, 2015).

### **Political Implications**

Healthcare facilities have recently realized the importance of parental bonding to a newborn and established a baby-friendly initiative in hospitals throughout the country. The initiative includes not giving patients formula samples to support and encourage breastfeeding and to implement the golden hour of skin-to-skin contact immediately after birth. Skin-to-skin contact promotes breastfeeding and bonding between the mother and baby (Henderson, 2014). Midwives require physician supervision or written collaborative agreement in order to write prescriptions at birthing centers and hospitals (Walker et al., 2014).

In Illinois, the proposed birthing center facility needs to identify the geographic location of the facility within a health professional shortage area, document the center will have no more than ten beds and will be certified to participate in the Medicare and Medicaid programs

(DiVarco, 2010; Illinois Health Facilities and Service Review Board (FSRB), 2015). Birthing center employees must operate under a hospital license or have an agreement with a licensed hospital for the referral and transfer of patients in need of an emergency cesarean delivery within 30 minutes of the hospital (Illinois Health FSRB, 2015). Birthing centers must provide prenatal care in Illinois to allow women access to continuous healthcare throughout pregnancy (Illinois Health FSRB, 2015). The Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN) (2010) claims midwives, the majority being certified nurse midwives who are educated in nursing and midwifery, empower women to give birth naturally.

### **Discussion**

After analyzing the cost-benefit ratio, birthing centers are the better choice for low risk women who want to save money. Most insurance companies cover birthing centers under their policy, as some families are covered by Medicaid since the Affordable Care Act (ACA) came into effect in 2010 (AABC, 2015). Hospitals charge around \$13,000 per birth in comparison to \$3,000 at a birthing center.

Mothers and other families can interact during the labor process, as care is centered on what the woman wants and feels at birthing centers compared to doctors choosing what to do for the women in hospitals utilizing medical interventions. Certified nurse midwives are as skilled as obstetricians as they have at least a master's degree and midwifery licensure (AWHONN, 2010). Physicians at hospitals are not with the family until birthing starts and then leave the room for the midwife or nurse to deliver postpartum care. Media influences the population, as many celebrities plan their birth to be on a certain day by having a vaginal induction or an elective C-section. Labor should not be seen as an illness as it is in hospitals, but more of a natural experience as seen by midwives (AWHONN, 2010). A higher rate of breastfeeding occurs in

mothers who give birth in birthing centers then those in a hospital (Dekker, 2015). Birthing center health outcomes are better than those in the hospital for low-risk mothers (ACOG, 2015; Dekker, 2015). Staff follows certain guidelines, has interventions ready in case of emergencies, and is at most 30 minutes away from a hospital in case of a medically needed C-section (Illinois Health FSRB, 2015).

The state health facilities and service review board approved the development of a birthing center in Bloomington, Illinois on April 21<sup>st</sup>, 2015 planned to open in 2016 (FSRB, 2015). This addition of a center is significant, as women in the community need greater access to birthing centers. The facility will contain a full kitchen, living space for patient's families, full bathroom and birthing tub in each room, and exam rooms for prenatal care (Youngblood, 2015). Physicians, midwives, and nurses will be available for all patients to see upon request; however, midwives will be utilized the most (Lorenz & Tillson, 2015). Although this facility will only have three birthing rooms, the staff will also provide prenatal and postpartum care with education classes for pregnant women (Youngblood, 2015). As birthing centers are new to the U.S., more research including patient safety and insurance liability coverage needs to be performed. Women do not often seek out birthing centers, as facilities are not well advertised and more research needs to be conducted.

### **Conclusion**

Overall benefits of birthing centers include utilizing less medical interventions, decreasing the rate of C-sections, having a lower cost, and allowing for family centered care in comparison to a hospital (What to Expect, 2014). Birthing center staff performs intermittent auscultation and hydrotherapy for birthing mothers and allows for the consumption of food and water to allow women to feel more comfortable while delivering a child (King & Pinger, 2014).

Consequences of hospitalized births include high cost of delivery, transferring clients to different floors and rooms for a different stage of labor creating stress, and a high rate of C-sections of 32.7% in the U.S. leading to complications (CDC, 2015). Further research is needed for additional birthing centers to open across the country and for midwives to care for more patients, as 96.7% practice in hospitals (AWHONN, 2010). Nurses and other healthcare professionals must further educate patients on the role of a midwife and options available for the labor and birth experience. Birthing center births allow for better health outcomes in properly screened, low-risk women than hospital births (Dekker, 2015; Jones, 2013). More research and patient education will allow many mothers to benefit from the positive experience birthing centers offer.

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