

July 7, 2010\*

### **The American College of Nurse-Midwives Expresses Concerns with Recent *AJOG* Publication on Home Birth**

Wax JR, Lucas FL, Lamont M et al. Maternal and newborn outcomes in planned home birth vs planned hospital births: a metaanalysis. *Am J Obstet Gynecol* 2010; 203.

The July 1 online edition of the *American Journal of Obstetrics & Gynecology* includes a new metaanalysis comparing home birth and hospital birth outcomes. "Maternal and newborn outcomes in planned home birth vs planned hospital births: a metaanalysis," by Joseph R., Wax, MD, and colleagues, concludes that "less medical intervention during planned home birth is associated with a tripling of the neonatal mortality rate."

The safety of home birth has been the focus of significant research in recent decades. It is important to note that the authors' conclusion differs significantly from findings of many recent high-quality studies on home birth outcomes which found no significant differences in perinatal outcomes between planned home and planned hospital births. We therefore caution against over-interpretation of these findings until there has been an in-depth review of this analysis which we will be conducting. In the meantime, we express several initial methodological concerns.

A metaanalysis is a type of statistical analysis that brings together the findings from a number of independent studies in order to make conclusions about the combined results. A metaanalysis is a useful exercise when the studies included are credible and a clear and consistent methodology is presented. In this publication, we are puzzled by the authors' inclusion of older studies and studies that have been discredited because they did not sufficiently distinguish between planned and unplanned home births—a critical factor in predicting outcomes. Also troubling is that several recent credible studies of home birth were excluded for no apparent reason.

A planned home birth is generally defined as "the care of selected pregnant women by qualified providers within a system that provides for hospitalization when necessary." The use of this definition prevents the inclusion of women who experience an unplanned home birth or those who are not appropriate candidates for home birth because of risk status.

Of the largest studies included in this metaanalysis, *only three* (Hutton, et al 2009; Janssen et al 2009; & deJonge et al 2009) clearly distinguish between planned and unplanned home births. These three studies—which comprise 93% of the women included in the metaanalysis—found no significant differences in perinatal outcomes.

Researchers use different definitions for neonatal mortality: early (first 7 days), late (7-28 days), or up to 28 days after birth. *Only one* study (deJonge, et al 2009) both meets the gold standard for quality in home birth research (Vedam, 2003) and had sufficient numbers on which to base conclusions about neonatal mortality.

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This study examined early neonatal mortality and found that babies born in planned home birth were *not* more likely to die or to suffer severe illness in the first week of life. It is not clear why deJonge's data were excluded in Wax's analysis of neonatal mortality, despite the fact that this study alone accounts for the majority of the sample in the full metaanalysis.

Many credible studies have demonstrated that the best home birth outcomes are achieved when women are appropriately screened, are attended by a qualified provider, and can be transferred to a receptive environment when necessary. The authors conjecture that greater accessibility of technology in hospital settings has produced better neonatal outcomes. **This conclusion cannot be drawn from the data presented in this metaanalysis. In fact, a number of credible studies have shown that the increased use of technology and interventions in childbirth for low risk women, such as elective induction of labor and continuous electronic fetal monitoring, do not improve the health of mothers or babies.**

Based on these limitations, ACNM cautions against over-interpretation of these findings until there has been further review. We recommend that future research on place of birth in the United States be well-designed and conducted by multidisciplinary teams who are knowledgeable about the complexities inherent in researching the impact of birth setting on perinatal and neonatal outcomes. This approach would help us add to the body of knowledge about place of birth for clinicians as well as childbearing families, and provide a venue for us to work together to achieve better outcomes for mothers and infants in all settings.

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\* Revised July 13, 2010

For more information, see:

ACNM Position Statement on Home Birth, 2005).

<http://www.midwife.org/siteFiles/position/homeBirth.pdf>

Home Birth - Resources & Bibliography

[http://www.midwife.org/siteFiles/education/Home\\_Birth\\_10\\_08.pdf](http://www.midwife.org/siteFiles/education/Home_Birth_10_08.pdf)

Home Birth: Resources for Payers and Policymakers

[http://www.midwife.org/Home\\_Birth\\_Resource.cfm](http://www.midwife.org/Home_Birth_Resource.cfm)

Vedam, S. Home Birth versus Hospital Birth: Questioning the Quality of the Evidence on Safety. BIRTH 2003: 30;1.