

## Veni-project

The overall aim of the project was to study the effects of care provider and place of birth on quality of care during labour. Data that were used in the studies are accessible with permission of the researchers involved and, where applicable, of PRN.

### *Maternal and neonatal outcomes*

We merged data from a national study into severe maternal birth outcomes (LEMMoN study) with data from the Dutch register on midwifery, obstetric and neonatal care (PRN). With this merged dataset, we compared severe maternal outcomes between women who started labour in primary care versus in secondary care and between planned home versus planned hospital birth.

PRN data were used to examine the rate of caesarean section (CS) in subgroups of women and the factors that are associated with the relatively low CS rate in the Netherlands. In addition, we compared infant deaths and adverse infant outcomes among women in primary care at the onset of labour with planned home versus planned hospital birth.

Data from the Deliver study were used to compare medical interventions and maternal outcomes between planned home versus planned hospital births at the onset of labour.

Women in primary care, who had babies before, and who planned home birth had lower rates of severe adverse maternal outcomes compared to those with planned hospital birth and their babies had lower rates of adverse outcomes. For first time mothers, there were no differences between planned home and planned hospital births. Women who started labour in primary care had lower rates of severe adverse maternal outcomes compared to women who started labour in secondary care. Our results suggest that it is possible to select a group of women at low risk of complications who can start labour in primary care and can choose to give birth either at home or in hospital.

### *Women's experiences*

In addition to concerns about safety, there have been worries about the impact of referral during labour on women's experiences. Data from the Deliver study were used to compare women's sense of control and satisfaction with their caregiver. We hypothesized that referral during labour has a greater impact on women with a planned home birth compared to those with a planned hospital birth. In the Deliver study, we found that women in primary care with planned home birth had a higher sense of control and they rated the quality of their caregiver as higher compared to those with planned hospital birth. Women who were referred during labour from primary to secondary care were less satisfied and had a lower sense of control compared to women who were not referred. However, women in the planned home birth group and who were referred had higher levels of sense of control and satisfaction with the caregiver than women in the planned hospital group. Overall, the differences between the planned home birth and planned hospital group were small. Nonetheless, the hypothesis that referral during labour has a more negative effect on women with planned home birth compared to those with planned hospital birth was not confirmed.

The Deliver study data were also used to examine the relationships between anxiety or depressed mood with planned place of birth and the relationship between place of birth and successful breastfeeding. These results have not been published yet.

To gain more insight into women's experiences, we conducted interviews with women who started labour in primary care and who were referred to secondary care during labour. We found that it was important for women that midwives handed over their care in person in case of referral and stayed until women felt safe with the hospital team. Personal continuity of care, in which case the midwife stayed until the end of labour, was highly appreciated but not always expected. Fear of transportation during labour was a reason for women to choose hospital birth but also to opt for home birth. Choice of place of birth emerged as a fluid concept; most women planned their place of birth during pregnancy and were aware that they would spend some time at home and possibly some time in hospital. These findings have important consequences for the way women are informed about planned place of birth and for the organisation of care during labour.

### *International comparison*

We combined routinely collected data from the Netherlands (PRN) with those from a large cohort study in England (the Birthplace study) to compare the rate of medical interventions and maternal outcomes among planned home and planned hospital births among low risk women in both countries. These results have not been published yet.