AIMS For a better birth...

Safety and place of birth: part two

AIMS Journal, 2023, Vol 35, No 2



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In the first article I explored evidence around mother and infant mortality for low-risk pregnancies and place of birth. Now I move on to consider the majority of women and pregnant people[1], and the other factors we might encompass with the term 'safety'.

What about the 55% who are not 'low risk'?

We know that most women are now directed to give birth in an Obstetric Unit (OU), despite Tew's finding that "obstetric intervention only rarely improves the natural processes".[2] The Birthplace study[3] conducted various secondary analyses to explore different risk factors for women with 'higher risk' pregnancies (See Table 2).

Table 1: Summary of Birthplace on women with 'higher risk pregnancies[4,5,6,7]

Report and link	Focus	Findings
Hollowell et al, 2014 [3]	Effect of obesity (otherwise low risk)	"Modest" increase of chance of intervention and some adverse outcomes for mother. Lower for multips.
Li et al, 2014 [4]	Effect of maternal age in women (otherwise low risk)	Absolute chance of interventions lower in all non-OU settings, at all ages, for both primips and multips. Adverse outcomes for both mothers and babies increase with maternal age. Older first-time mothers birthing outside OU more likely to experience interventions (augmentation). For babies, no difference in adverse outcomes until woman over 40 and giving birth on OU.
Li et al, 2015 [5]	Women at higher risk, home or obstetric unit.	Lower incidence of mortality, morbidity, and neonatal admission in planned home births. Maternal interventions are also lower.
Rowe et al, 2015 [6]	Women planning VBAC, home or obstetric unit	Similar adverse outcomes for both mother and baby in both locations. Chance of vaginal birth higher at home. Transfer rates high, particularly in women with only one previous birth (56.7% vs 24.6%)

Analysis of the effect of obesity[3] showed a modest increase of risk of intervention and some adverse maternal outcomes. However, otherwise healthy women who have already given birth (multips) were at lower risk of intervention than first-time mothers (nullips). The conclusion was that birth in non-obstetric settings could be a positive option for healthy women who already had a baby.

Secondary analysis of the effect of maternal age (otherwise low risk)[4] showed that adverse outcomes for both mothers and babies increased with maternal age, but without a specific age (i.e. 40) when risk increased. The absolute chance of interventions was lower in all non-OU settings, at all ages, for both multips and nullips. However, older nullips planning birth off the OU were more likely to experience interventions, particularly of augmentation with syntocinon (which could only take place after transfer to the OU). For the baby, the risks showed no difference unless the woman was having her first baby over 40 and giving birth on the OU, when the chance of neonatal unit admission or perinatal death increased. There is an interesting discussion of possible reasons for the disparities in the 'comparison with the existing literature', which includes the potential impact of labelling women.

A comparison of outcomes for women at 'higher risk' of complications planning birth at home or in the OU found the home birth group had a lower incidence of mortality, morbidity, and longer neonatal admission.[5] This echoes Tew's work in the 1980s which found that only those at the very highest risk had lower infant mortality in hospital compared with home or GP unit.[1] Maternal interventions were also

lower in this group. The team qualified their findings around neonatal care by saying that while more babies born in the OU were admitted to neonatal care, it was "unclear if this reflects a real difference in morbidity".[5] Which is to say that, if the neonatal unit is next door, you may be more likely to send the baby there than if it required an ambulance transfer. Potentially this mirrors the 'next door' effect of a higher rate of women transferring from AMLU to OU for an epidural, though we also need to recognise that women with additional risk factors may have negotiated to labour on the AMLU, knowing transfer would be easy if necessary.

Another higher risk group is women planning vaginal birth after caesarean (VBAC), and a further study looked at planned birth at home or in the OU.[6] While mother and baby experienced similar risks of adverse outcomes in both locations, the chance of having a vaginal birth was significantly better at home. However, transfer rates were high, particularly for women who had only one previous birth (56.7% vs 24.6%).

While we're thinking about safety, a fascinating insight came from the one piece of qualitative research that formed part of Birthplace.[8] This small study of 58 'low risk' postnatal women found that 30 women reported 'speaking up', defined as "insistent and vehement communication when faced with failure by staff to listen and respond".[7] This highlighted that women may be trying to self-advocate for their safety in the face of the failure of staff to listen. The presence of a lay supporter (i.e. partner, relative or doula) helped the women speak up. With such a small study, even though researchers looked at birth planned in different locations, place cannot be identified as a factor.

Follow-on study

Further analysis of the Birthplace data addressed five areas in more depth.[9] Their conclusions state that further centralisation of services in larger units should be done thoughtfully, monitored and evaluated, because intervention rates are lower in out-of-hospital birth. For example, more support for home birth for multips is recommended. It also highlights that "non-clinical factors may be leading to an 'excess' use of epidurals and augmentation in women labouring during 'office hours'" and suggests a review of these practices.[8] And it highlights the "marked age-related increases" in interventions, and "prolonged" neonatal unit admission as meriting further investigation.[8] Better data recording, and information for women to support decision-making were also suggested.

'Risk' is conditional and flexible

Any of us who work with pregnant women know that risk isn't a fixed concept, and that "very few women are absolutely always either low- or high risk and neither definition may hold true at all times during the childbirth experience".[10] Health conditions (which may or may not be pregnancy-related) emerge, and "complicating conditions",[2] such as prolonged rupture of membranes or meconium in the waters, may appear at the start of labour.

Parents are usually aware that, as in life, the assessment of risk might change, with consequent impacts on their plans. This is not a reason not to plan a birth in a specific location, but a reminder that decisions

are always contextual and have implications.

The identification of risk factors is intended to ensure a woman and baby get appropriate care. However, they are only predictive tools, and not guarantees. More recent thinking highlights a need for research to better understand any specific risk factors associated with place of birth so that parents can be given evidence-based information on which to base a decision.[11]

Other pressures on choosing place of birth

The pandemic brought about rapid service reconfigurations such as remote consultations and telephone triage, to protect women and their carers from infection. Many of these services have remained in place as the time saved can be attractive to both parents and staff. However, the HSIB (Healthcare Safety Investigation Branch) report of intrapartum stillbirth during that period recommends that those services should be reviewed for safety and effectiveness, as in-person contact can improve diagnosis.[12] The report also suggested the definition of a minimum standard for use of interpretation services, along with other structural improvements such as data recording that can be more easily shared between stakeholders and across geographical boundaries, improving speedy and effective transfer.

We know that a woman or pregnant person might be interested in exploring different places of birth, but experiencing pressure to labour on an obstetric unit, either from healthcare professionals or their partner. Some women say they can't make what might be viewed as a 'riskier' decision because 'it's his baby too'; alternatively, they may feel they would be safer away from an abusive partner. Being cared for by health professionals, away from home, could also be attractive to a woman overwhelmed by the demands of her family.

Even if she's healthy and not under pressure, the uncertainties of low staffing and an overstretched ambulance service, with some MLUs having restricted opening hours, or the potential for home birth support to be withdrawn at short notice, can feel too risky an emotional load to cope with. As a nation we are moving from more, smaller units to fewer, larger units, which is likely to have a negative impact on extended outcomes – a lose-lose scenario where first time mothers either take the slightly increased risk and stay at home, or move to the OU with the strong likelihood of more intervention. As a result, many women now seem to be making 'least-worst' decisions and choosing what feels to them a predictable intervention over the unpredictable unfolding of labour and birth. My local Trust are alarmed at the rate of maternal-request elective caesareans, but who can blame the women for wanting the only form of control they seem able to grasp, especially when told how 'safe' it is.

As birth workers we can help parents explore their feelings around minute but potentially catastrophic risks, versus a higher chance of interventions that may feel less immediately daunting but can have potentially life changing repercussions. Because, despite the good intentions of healthcare staff, there is not good evidence for many interventions.[13]

Research since Birthplace

In the Netherlands, where the home birth rate is around 20% versus 2.5% in England and Wales, research

found no difference in adverse outcomes for babies of nullips birthing at home or in hospital. The authors concluded that midwives' greater experience of home birth was at the root of this difference.[14]

Systematic review and meta-analysis bring together multiple studies. Two recent reviews have found that for 'low-risk' pregnancies place of birth had no statistically significant impact on infant mortality, and a lower chance of morbidity and interventions for mothers.[15,16] For both reviews the studies included may not have been large enough to detect rare outcomes, and even in well-resourced countries maternity systems differ, so we must be cautious about interpretation.

During the 2020 Coronavirus pandemic it was highlighted that for women who didn't require obstetric care it would have made more sense to birth outside hospital.[17] This would have protected women from hospital acquired infection and reduced the stress on maternity units. However, the increased anxiety from hospital Trusts in England saw a dramatic and military entrenchment, and, in many areas, a withdrawal of out-of-hospital care in any form. This did lead to more women considering freebirth,[18] and a hasty briefing sheet from an anxious Royal College of Midwives.[19]

What else do we need to consider?

Research is conducted on populations and is generalisable only to the extent that we are represented by that population. So, increased risks for women and pregnant people over 40 will include those with multiple health, social and economic issues, as well as the fit, healthy, and well supported. Population data will also be more representative of the majority ethnic groups, and, "In all reviews that aim to draw conclusions about population health needs, it is vital that explicit consideration is given to ethnic minority communities", yet coding data about ethnicity is often inconsistent or missing, muddying our understanding of the issues.[20] So, while population data is necessary for the configuration of services, it may not apply well to an individual.

In research looking at what people value when selecting care there was an almost universal desire for a local service with a known midwife, and a sense of control in decision-making.[21] However, while some prefer easy access to doctors and a range of pain relief, others had different priorities.[19] Safety and psychological wellbeing were equally valued by birthing women as part of a positive experience.[22]

Despite NICE guidance, planning a place of birth is often a process of negotiation and compromise. Middle settings such as Freestanding MLUs may be perceived by midwives as less suitable for women with higher risk status, while there can be more flexibility around use of the Alongside MLU (especially if it is literally through a set of doors rather than on another floor). Some women will request home birth as an initial step to negotiate MLU care, or will accept 'lesser' interventions such as a managed third stage to calm midwife anxieties about home birth.

Sometimes women and birthing people choose not to give birth in hospital because they have experienced trauma and find the systems and attitudes insufficiently flexible to meet their needs.[23,24] When women have experienced both hospital and home birth, their experience of birthing at home was more positive than hospital.[25] These researchers concluded a need for genuine choice, and the

"importance of care which is respectful and responsive to divergent ideologies about birth".[23] This echoes work showing that ethnic and social inequalities are reflected in the options offered to women.[26]

In evidence to the Health and Social Care Committee, Birthrights stated that they were "concerned by the ongoing risk that focusing on too narrow a definition of "safety" – one governed solely by policies, procedures, checklists, monitoring and equipment leads to the sort of inhuman, conveyor belt maternity care described by women in the Better Births report".[27]

When adverse events occur, we must be thoughtful about assuming that the later identified risk factors should have excluded a woman from a particular care setting. Perhaps the initial risk assessment was inaccurate, and the woman was not given correct information on which to base her decision. Perhaps the risk factors were not shared with other members of the care team, or acted upon, to provide the best care. Was the care continuously monitored and reviewed as labour progressed, with adaptations made to the care plan as risk status changed, and were communications between teams and locations effective?

Women used to experience a lying-in period, with traditions of sister or neighbour care, often the same people who supported them during labour. Now, most will experience care within the NHS establishment, and will be encouraged to return home promptly to a family who can theoretically provide better support than they will get on the postnatal ward. But 'well enough to go home' is often understood as 'well' which, given that maternal mortality is greater after birth than before or during, puts women at greater risk.

For the infant, we know that breastfeeding is positively affected by birth at home,[28] and potentially protective against longer-term health conditions.[29] Where partners are actively involved, which may be more likely in an out-of-hospital setting, their experience of birth is also more positive.[30]

What about the cost?

Some people feel that the individualised care at a home birth, for example, would be more expensive than in hospital, and that it is 'selfish' of women to ask for such personalised care. It is useful to know that around the world birth in hospital is known to be more expensive for the service, as well as physically and psychologically costly for the women.[31,32] Maternity services should "re-orientate themselves to provide choice of place of birth", because "while the cost savings would be attractive to planners, the central driver of service redesign should be to safely meet the woman's physical, social, and emotional needs".[33]

Perspectives on risk

Our values and attitudes to risk matter too. People who choose an out of hospital setting, with either low or high-risk factors, and with or without midwifery care, may be making a more active and informed decision than those who opt for hospital and may have a mindset that leads them to be better prepared physically and emotionally for the challenges of labour and birth. Fear based choices do not protect, and for these people, choosing a place of birth can be a composite of balancing physical and emotional risks, and encompassing cultural safety in addition to what works best logistically for the family.[34] Excessive

talk about 'risk' can be considered coercive, and lead to women disengaging from maternity services, bringing its own set of new risks.[35]

What next?

An exciting development is this year's Cochrane review comparing low risk home and hospital birth.[36] The authors identify that there is not enough evidence from Randomised Controlled Trials (RCTs) to draw conclusions - most women are not willing to be randomised to a place of birth, and studies would need to be very large to address the rare adverse events. They further conclude that as, "there is strong evidence that out-of-hospital birth supported by a registered midwife is safe, equipoise may no longer exist".[34]

Equipoise means that nobody can state with certainty which option is better, and is the necessary starting point for an RCT, because it would be unethical to randomise someone to a pathway known to be inferior in any way. They suggest that Cochrane will move to using well conducted observational studies in future updates of this regular review of place of birth.

For practice, their recommendations refer to "a planned home birth attended by a midwife backed up by a modern hospital system (in case a transfer should turn out to be necessary)".[34] Our problem in 2023 is that with NHS services under significant strain, the well-organised integration of out-of-hospital birth suffers, sometimes because of pressure on ambulance services. It feels bizarre that a service could not only cause more iatrogenic harm, but also cost more, because it does not act on a well-founded evidence-base.

Conclusion

The public understanding of childbirth is poor, and it is understandable that expectant parents focus on the negatives. Yet the absolute risks are very small, and "perinatal mortality rates are now so low that they are a crude measure of safety".[37] Therefore, differences between birth place locations remain very small, though this may not be how they're framed to parents.[38] Moving to the more technological obstetric environment may 'feel' safer for some parents and healthcare professionals, but it doesn't remove risk.

Even in her 1989 preface to the first edition, Tew identified that "action to reduce losses in childbirth still further would have to concentrate on improving the health of the neediest mothers",[2] and poorer outcomes in the UK remain more likely to be a result of social inequalities than either ill health or inadequate care. When women choose to birth outside the system it is often the result of trauma experienced (around 4-5% of women who have given birth)[39] or anticipated in hospital, and their need to feel a safety that goes beyond 'a healthy baby'. Integral to safety is listening to women, birthing people and their families, meeting their psycho-social and cultural needs as well as their health needs.

While risk can change during labour, quality care will accommodate that. Well integrated services - where out-of-hospital birth is supported by skilled and experienced midwives and excellent ambulance services - are known to be safer. However, UK services were sub-optimal before Covid, and have been

hard hit by staffing and organisational issues since. We don't yet know what impact this is having on safety, nor the effect of the Integrated Care Boards established in England during 2022 to replace Clinical Commissioning Groups.[40]

Dahlen states that rather than asking if home birth is safe, we should be asking if birth in hospital is safe.[10] Safety not just as an element of birth but part of a woman's reproductive life and human rights, and she states, "we need to change the embedded narrative, to embrace a definition of safety that women instinctively understand and strive for, including physical, psychological, social, cultural and spiritual safety".[10]

Yes, future research needs to explore what increases risks out-of-hospital, but it should also address the financial and environmental aspects of place of birth. We can campaign for what we know is protective: well-integrated care; skilled, supported and culturally competent health professionals providing respectful relational continuity of care;[41] and adequate resources including places of birth that meet the parents' needs.

Ultimately, I'd argue that place of birth is less relevant to safety than care, and good and poor care can arise in any location. So, let's be brave, and challenge the choice architecture, which ignores individual needs and restricts access. Let's assure mothers that their care will be excellent in any location, and then make that a reality. After all, if more women were encouraged to birth out-of-hospital, what difference would that make to the stories we hear and share?

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